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LA VICTORIA

AN EARLY SITE ON THE PACIFIC COAST OF GUATEMALA

BY
MICHAEL D. COE

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TO MY WIFE

PREFACE

THE SUBJECT matter of this report is the excavation of a small but early village site on the Pacific coast of Guatemala and the analysis of the cultural materials resulting therefrom. Most of the actual excavation work was accomplished from January through March, 1958, and was undertaken as part of the Guatemala program of the Peabody Museum, Harvard University, for that year. I wish to acknowledge the generous grant rendered to me by The American Philosophical Society from the Penrose Fund; this, and the liberality of an anonymous donor, made possible the expedition.

It is a pleasure to record the aid provided by various officials of the Guatemalan Government. The then Secretary of Education, Colonel Marco Aurelio Mérida, facilitated the program from the beginning. To the Director of the Instituto de Antropología e Historia, Sr. Carlos Samayoa Chinchilla, I wish to express my sincerest thanks for the generosity of his interest and the warmth of his friendship during our stay in his country. There was no phase of our activities, from the initial permit for excavation to the packing of type collections for export, that was not made an actuality by his selfless aid. The Director of the Museo Nacional de Arqueología y Etnología, Sr. Antonio Tejeda Fonseca, very kindly placed all the facilities of the museum at my disposal and provided much excellent professional advice during the analysis of the collections from La Victoria. The drawings of pottery and artifacts in this report are the work of Sr. Antonio Oliveros C. His long devotion to his work is here gratefully acknowledged. All other members of the Instituto gave generously of their time and aid to the project, including Sr. Gustavo Espinosa, Sra. Telma de Villanueva, Sr. Guillermo Grajeda Mena, Lic. Daniel Contreras, and Lic. Hector Samayoa Guevara.

Many friends in Guatemala City, both Guatemalan and American, also helped me at every turn. Among these, I wish to thank Dr. and Mrs. Fernando Aldana, Sr. Jorge Ibarra, Dr. Guillermo Mata Amado, Sr. Gustavo Stahl, and Sr. Guillermo Ibargüen and family.

In the Ocós area, my greatest debt is to Sr. Oscar Méndez, owner of the Finca La Zarca and of the land on which the site of La Victoria is located. His enlightened interest in the excavations as they progressed and his help in procuring labor are genuinely appreciated. The municipality of Ocós, through the generous interest of the mayor, Sr. Angel Barrios Arriaga, provided us with lodging at no cost throughout our stay in the village.

The Pacific coast program was conceived and carried out with the encouragement and advice of my teacher, Dr. Gordon R. Willey. My debt to him, as readers of this report can see, is intellectual as well as practical, and it is clear that this, as well as all investigations into the related problems of New World development and New World diffusion, rests on the ideas which he has formulated and often on the sites he has excavated. Both Dr. Willey and Mr. A. Ledyard Smith were kind enough to visit La Victoria when work was under way and made a short reconnaissance in nearby sites which has proved most useful to this report.

Others who have actively implemented the 1958 excavations in a variety of ways are Dr. A. V. Kidder, Dr. H. E. D. Pollock, and Dr. Gordon Ekholm. I would like to thank the Director of the Peabody Museum, Harvard University, Dr. John O. Brew, for his support of the program, and Mr. Frederick P. Orchard, formerly of the same institution, for help in expedition preparations. Mr. Edwin M. Shook directed me to La Victoria, which he had previously reconnoitered, and it is to his advice that I am indebted for whatever success was attained in the 1958 field work.

The kindness of many friends in Mexico and the United States made available important and largely unpublished collections which were of invaluable help in placing the sequence at La Victoria in the development of New World prehistory. To the staff of the New World

Archæological Foundation in Tuxtla Gutiérrez, Chiapas, including Dr. J. Alden Mason, Mr. Gareth Lowe, Sr. Carlos Navarrete, Sr. Agustin Delgado, and Mr. Donald Brockington, I am deeply grateful for introducing me to the complex and important sequence of the Grijalva Depression. Dr. Keith Dixon supplemented this by generously sending to me his then unpublished manuscript on early phases at Chiapa de Corzo. My sincerest thanks also go to the President of the Foundation, Mr. Thomas S. Ferguson, for the hospitality received by me when in Tuxtla. In Mexico City, Dr. Roman Piña Chan took me through the Tlatilco collections from the Valley of Mexico and showed me materials from his own recent reconnaissance of the Pacific coast of Chiapas; my criticism of some of his theories in this report should not detract from his great contributions to Middle American culture history. I am indebted to Dr. Robert Squier for a good deal of unpublished information on his own researches in Olmec archæology which he very kindly forwarded to me, along with his ideas on the Olmec sequence; I have heavily relied on this in my reconstruction of Middle American prehistory. Mr. John Glass showed me the Peabody Museum materials from Playa de los Muertos, for which I am grateful.

Several scholars have been kind enough to offer their services in the identification of some of the cultural and non-cultural materials from La Victoria. Mr. Junius B. Bird of the American Museum of Natural History identified various yarns and weaves from plasticene casts of cord and textile-marked sherds. Dr. Karl Koopman, then of the Philadelphia Academy of Sciences, undertook the identification of the almost hopelessly broken and burned animal bones from the site. While all identifications of mollusks are by myself, I was guided by the counsel of Dr. William J. Clench and Dr. Ruth Turner of the Museum of Comparative Zoology, Harvard University. To all of these, my sincerest thanks for their generous allocation of time.

It is customary to thank one's wife for performing all sorts of drudgery, such as proofing, typing, sherd washing, and so forth. My wife, Sophie D. Coe, not only did all of these drab tasks, but also accompanied me to the coast to share with me the heat, dust, and myriad discomforts of life in that part of Middle America. There was no part of the excavations in which she did not actively help, and there has been no phase of the analysis in which she has not provided useful advice and criticism. The report is as much hers as mine. I therefore dedicate it to her.

Michael D. Coe

Knoxville, Tennessee
April 9, 1960

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LA VICTORIA

AN EARLY SITE ON THE PACIFIC COAST OF GUATEMALA

ABBREVIATIONS

AMNH	American Museum of Natural History, New York	*NWAF*	New World Archæological Foundation, Tuxtla Gutiérrez
INAH	Instituto Nacional de Antropología e Historia, Mexico City	*PM*	Peabody Museum of Archæology and Ethnology, Harvard University
KJS	Kidder, Jennings, and Shook, 1946	*RES*	Smith, Robert E., 1955
MNAE	Museo Nacional de Arqueología e Etnología, Guatemala City	*RR*	Ricketson, O. G., Jr. and E. B. Ricketson, 1937

Chapter I

INTRODUCTION

ONE OF the larger unsolved problems of New World prehistory has been the origin of settled life in the two key areas of Nuclear America, that is, in Middle America and Peru. For the latter there has been revealed in recent years a long and fully documented development out of a hunting and gathering way of life through a stage of semisedentary horticulture and fishing to real village life based on intensive agriculture. In Middle America this extremely important transition from nomadic or seminomadic to sedentary patterns of livelihood has been indicated only partially in a fringe province of this culture area, Tamaulipas (MacNeish, 1958). MacNeish's pioneer study of dry caves in that state has shown that the staple crop of Nuclear America, corn, goes back to at least 2500 B.C., but there is no evidence that it stimulated at that remote date any of the arts which are the criteria of a fully food-producing economy. These are pottery, the construction of permanent houses arranged in village communities, loom weaving, and other techniques which are dependent upon a settled way of life.

A disturbing factor in the search for the origins of Formative cultures in Middle America has been that no matter how far back the sequence seems to extend, the phases heretofore considered to be the most ancient exhibit no signs of immaturity. In fact, quite the opposite, as Covarrubias (1957, p. 13) points out:

> Perhaps the most tantalizing problem in the study of early Middle American art is that it seems to have no roots, no origins. The early cultures appear in full bloom, without the formative stages that would show a logical development from older, more primitive peoples on a pre-ceramic, pre-agricultural level. . . .

For instance, Kidder was led to write in 1948 (pp. 226–27), after noting the high sophistication and technical excellence of Las Charcas pottery, at that time believed to be the earliest in Guatemala:

> The fact that Las Charcas wares, although older, are neither simpler nor structurally cruder than those of Miraflores renders still more puzzling the problem of Mesoamerican cultural origins. Their technical excellence argues for a long pottery-making background, of which to date no evidence has come to light. . . . Should local origins persistently fail to materialize, one would be forced to conclude that the ceramic art was introduced full-blown into Mesoamerica either from the south or from overseas. If from the south, some trace at least of its northward spread should exist. . . .

The suspicion had arisen in my mind that perhaps the problem could be rephrased. That is, where were the signs of even a semisedentary hunting and gathering stage in the crucial area from the Mesa Central of Mexico to central Honduras? It appeared most likely that when Archaic sites of that nature were found, the evidence for or against a local transition into fully settled village life would be discovered. We know that Archaic peoples both north of the Rio Grande and in South America favored river courses and the shores of lakes, lagoons, and bays for their semipermanent settlements. The widespread climatic changes that followed the end of the last glaciation killed off the big game in many areas and forced people into a dependence on more humble food resources such as fish, mollusks, seeds and roots, and smaller game like rabbit and deer. During the warm period known as the Hypsithermal (or Climatic Optimum), almost exactly the same adaptations to new ecological situations can be seen in the Mesolithic of the Old World and the Archaic of the new. In particular, the turn to an economy based on a less spectacular but more stable food supply meant that larger groups of people were living together over longer periods of time. Those peoples who settled along streams, rivers, and bodies of water, perhaps in most cases seasonally, often built up large refuse middens whose basic ingredient was discarded mollusk shells. In other words, a search for such shell middens in the lacustrine, riverine, or littoral situations generally preferred by Archaic peoples should

turn up sites of that important stage, and, it was hoped, evidences for the first steps toward the Formative stage.

There was some feeling among many archæologists that just such a midden had been found. In his 1948 survey of the Chiapas coast, Drucker had made a small test pit in a shell midden at Islona de Chantuto, situated in one of the inland lagoons found all along this part of the Pacific littoral (Drucker, 1948). Below levels containing what was said to be crude pottery, the midden appeared to be preceramic, with many shells, crude obsidian flakes, and ash. The site was revisited by a Mexican party from the Escuela Nacional de Antropología and further excavations were made. These excavations revealed nothing of diagnostic importance save some grinders or milling stones made from river cobbles, a few obsidian flakes, shells, and broken animal bones (Lorenzo, 1955). From the illustrations, the pottery at the top of the midden seems very late, perhaps Post-Classic.

Nevertheless, the Islona de Chantuto site suggested that an intensive search for shell middens along the lagoon and estuary system of the neighboring Guatemala coast, itself a continuation of the Pacific coast plain of Chiapas, would result in some very early sites, perhaps even preceramic. Moreover, the vast plain of this republic had more than once been offered as a region which could have seen the inception of intensive agriculture in Guatemala. Shook (1949, p. 508), from the experience of his excavations in the Tiquisate area of Escuintla and a survey made in 1948 along the Guatemala-Chiapas frontier, proposed:

> . . . that the earliest agriculturists in Guatemala lived along the coastal plain, and as the population increased and more land for cultivation became necessary, they slowly pushed into the highlands along the natural means of access, the river valleys, to the broad plains behind the cordillera such as the Antigua.

In this fertile, triple-cropped alluvial plain, then, the ecological potential for early Formative life was high. Therefore, the chances of discovering the transition to agricultural life in the top levels of a midden would have been increased.

Curiously enough, the entire Pacific coast from the Isthmus of Tehuantepec to El Salvador has been the most neglected region, archæologically speaking, in Middle America. This is especially strange, not only as its fertile soils would have offered an ideal environment for early cultivators, but also because it is a natural road for both trade and migration, presenting no major obstacles to speedy overland passage by foot. Moreover, the extensive coastal lagoon system was used as a kind of inland passage for canoe trade in historical times. There is no dearth of sites anywhere on this plain, but with few exceptions nobody seems to want to dig them. Kidder remarked in 1949 (pp. 349–58):

> Although our knowledge of the highlands is scanty, we are in an even worse case as regards the Pacific slope and coastal plain. That wonderfully fertile strip of country between the volcanic rampart and the ocean probably contains more ancient remains per square kilometer than any other part of the Republic. Sites, for the most part assemblages of earth mounds—there seems to have been very little stone construction at any period—are everywhere; and, even more than the highlands, the coast was easily accessible to influences and migrations from without. . . . It is certain that a stock-taking of coastal remains, followed by excavations at sites which such a survey shows to be strategic, would yield a rich harvest of information, not only as to Guatemalan pre-history but also upon problems of continent-wide importance.

One such important early diffusion appears from the available evidence to have been the spread of the dated monument cult out of the Olmec area, across the Isthmus of Tehuantepec, and southeast along the plain and upland slope of the Pacific coast in late Formative times (Coe, 1957). Why should not still earlier movements of traits and peoples be recorded here?

Aerial photographs of the Pacific littoral clearly revealed a number of older beaches standing in back of the present-day shore, and that these had been formed through a complex beach-lagoon evolutionary sequence. My first idea was to begin the 1958 field season in Guatemala with a survey of possible sites along these older beaches. The initial results in the most accessible area, that around Puerto San José and Iztapa, due south of the capital, were discouraging. Very shallow shell midden sites were found, but the material in them was clearly Late Classic. It was apparent that the fossil beaches closest to the actual coast were too late for my purposes. It would be necessary

to work further inland, for Edwin Shook, in conversation, suggested to me that even Formative sites seemed to be a considerable distance back from the coast of today, that is, that the degree of coastal pro-gradation had been faster than I had realized. This turned out to be not entirely the case, but it led to the success of the field trip.

The excavations at La Victoria were the direct outcome of Shook's answer to a query which I posed: had he ever come across a shell midden on the Pacific coast which contained material at least as early as the Formative? Shook pointed to the site of La Victoria, on the Ayutla-Ocós road near the Mexican border and a few kilometers from the shore, where he had collected a number of sherds from a low mound cut by the road and had seen that at least part of the mound accumulation was in the form of shell layers. The sherds were definitely Formative and seemed to him to be related in some way to Las Charcas, the oldest archæological phase of the Guatemalan highlands. This, then, was what I had been looking for: a site with not only very early Formative material, located a fair distance inland, but with clear indications that it had once been on a lagoon or estuary from which the inhabitants collected mollusks in great quantities. In other words, up until then, my strategy had been correct, but my tactics wrong.

The several months' excavation at La Victoria has resulted in the present report. As will be seen, a true Archaic phase was never discovered there, but it may lie below the 6-meter level finally reached and far below the water table. Nevertheless, in the deepest levels was unexpectedly discovered the earliest pottery yet known for Guatemala, lying underneath the deposits with Las Charcas-like pottery (these phases have been named Ocós and Conchas, respectively). Moreover, it could not have been foreseen that these very ancient ceramics would have the mark not only of connections with the earliest earthenware of North America but of extensive trade associations with Ecuador. While it must be admitted that the major question of the program was not answered, that is, the nature of the Archaic stage in this part of Middle America, new data were obtained to answer the basic problem on which the same was based: did the various arts from which settled life may be inferred develop in Middle America *in situ*, or were they introduced full-blown from outside? As is explained in the last chapter, the evidence from La Victoria indicates an affirmative answer to *both* parts of the question.

Therefore, it is suggested that archæologists have until now been looking in the wrong places for the beginnings of Formative-Neolithic culture in Middle America. The highlands have so far not provided the data sought. Further reconnaissance with excavation of geographical areas in which early peoples could have found ecological situations favoring an Archaic way of life, but with the environmental potential for intensive agriculture, should result in a far more detailed and archæologically documented picture of this great transition than the excavations at La Victoria have given. La Victoria was only a tiny village in one small part of the great Pacific littoral, which itself is a vast archæological unknown.

Regarding gaps and faults in the digging at La Victoria, the most serious is the general lack of horizontal as opposed to vertical excavation. It would have been indeed preferable to have revealed the whole layout of the site as some American and European archæologists have been able to do, with every post-mold of each house put down on a village plan. A few test pits in a site tell us little more than the sequence, and I am fully in agreement with the eminent British archæologist who says (Wheeler, 1956, p. 55):

> What are we really out for? I began this chapter by describing chronology as the backbone of archaeology; and so it is, but the backbone is not the whole skeleton, still less is it the flesh and blood and spirit of our subject. Our objective is a reconstruction of human cultural achievement in all those aspects of life which are susceptible to material evidence. . . .

Nonetheless, while one may hold such ideals even fervently, in practice one has to make field compromises. To strip off the whole mantle of accumulated deposits, and lay bare what is left of a village like La Victoria, would have meant the removal of up to 6 meters of material below about twenty thousand square meters of surface. Only a few of the largest expeditions are prepared for such mammoth excavations. So, while some idea of one series of house foundations was obtained, some

readers may find this disappointingly little. Nevertheless, I wished to remain true to my problem, which was to take back the archæological sequence on the Pacific coast as far as possible, so that chronology has, in fact, been deliberately emphasized at the expense of cultural inferences. Another feature inherent in excavations in this part of the world is the poor state of preservation of materials other than imperishables like pottery and stone. It is all very well to reconstruct the total life of a people from trash found in a dry cave or fished up from a waterlogged bog, but in the tropics very little is left. It so happened that in the case of a few perishables, impressions on pottery or adobe provide more information than is usual in hot, wet zones, but, in general, in my attempt to give a full picture of the early life at La Victoria, I have been forced to lean heavily on analogy for the purposes of reconstruction. These compromises I hope have not been detrimental to the present report.

Chapter II

THE ENVIRONMENT AND ITS POSSIBILITIES

GEOLOGY

ALTHOUGH accidents of political geography, both aboriginal and post-Spanish, have divided it on the map in different ways, the great plain which extends along the Pacific coast from the Mar Muerto on the Isthmus of Tehuantepec to the eastern frontier of Guatemala can be considered a single geographical area (fig. 1). The tremendous volcanic chain of the Sierra Madre drops off toward the Pacific into a level plain of varying width extending to the sea. A traveler may look to the south from the edge of the mountain range and vividly sense the abruptness of the change between the highlands and the coast. For instance, from a vantage point above Escuintla, in Guatemala, all the land to the south seems amazingly green, flat and featureless, disappearing in a blue haze where the darker blue line of the Pacific Ocean can just be made out. To descend to the plain from the *Altos* is an even greater contrast, for to one used to the temperate and even cool climates of the mountains and valleys, the Pacific coast on first arrival seems something like a very humid furnace. The ancient inhabitants must have responded similarly to the same climatic extremes.

Geographically, the coastal plain of Chiapas and Guatemala is the offspring of the Sierra Madre. The volcanic activity of the near and distant past has manifested itself through several important processes, one of which has been the production of volcanic ash or *arena* laid down in blankets over the entire area. This *arena*, which consists of pumice fragments of all sizes, is carried down in vast amounts by the swift rivers which have their origin in the highlands, and is deposited along the banks and even unloaded into the sea. The explosion of volcanoes also deposits finer wind-blown ash over the coastal plain itself, building up the level of the ground. The magnitude of this process was demonstrated during the eruption of Santa María volcano in Quezaltenango in 1902, when most of southwestern Guatemala and neighboring Chiapas was blanketed in fine, white ash. A merchant vessel proceeding to Champerico from San Francisco had to plow its way through a sea of pumice extending from Chiapas to the port of destination. The lower part of the Rio Tilapa, to the east of Ocós, was so clogged with pumice that the river completely changed its course. Activity of this nature must have been many times more intense during the past when the Sierra Madre was building itself up through volcanic eruption. Another force of coastal formation has been the deposition of silts from erosion of soils in the highlands, particularly noticeable during the rainy seasons when rivers on the Pacific slope rush down loaded with slate-colored or yellowish-brown detritus, to be deposited along the plain to the south. In flood times, these rivers often change their courses and run in meanders over the plain to the sea, when vast quantities of silts are laid down. Such old meander patterns can clearly be seen from aerial photographs (fig. 2).

Swift lateral currents carry the silty materials deposited in the sea to form sandy bars all along the coast. Between these bars and the coast itself are lagoons and estuaries, clogged with mangrove roots and mud, a rich source of food supply for the inhabitants of today and of ancient times. The constant accretion of detritus gradually fills in the old lagoons, while a new sandy bar is forming further out to sea. Eventually, the former lagoon becomes dry land, with a new lagoon being formed between the old beach and the modern. In time, the latter itself will be swallowed up in the continuous process of coastal formation.

Lastly, soils have been and are in formation along the Pacific plain, with the alteration of

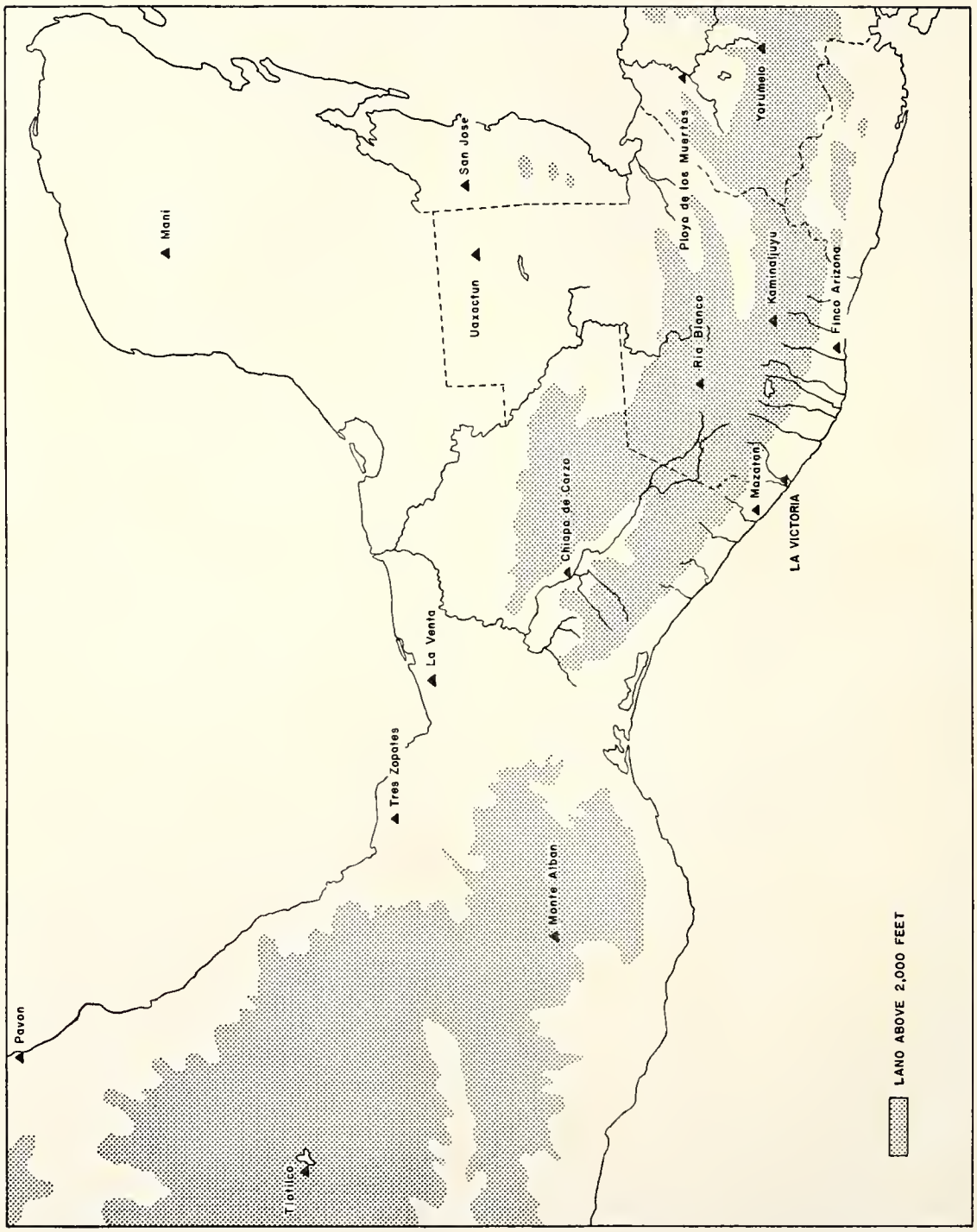

Fig. 1. Map of Middle America with location of La Victoria and other Formative sites indicated.

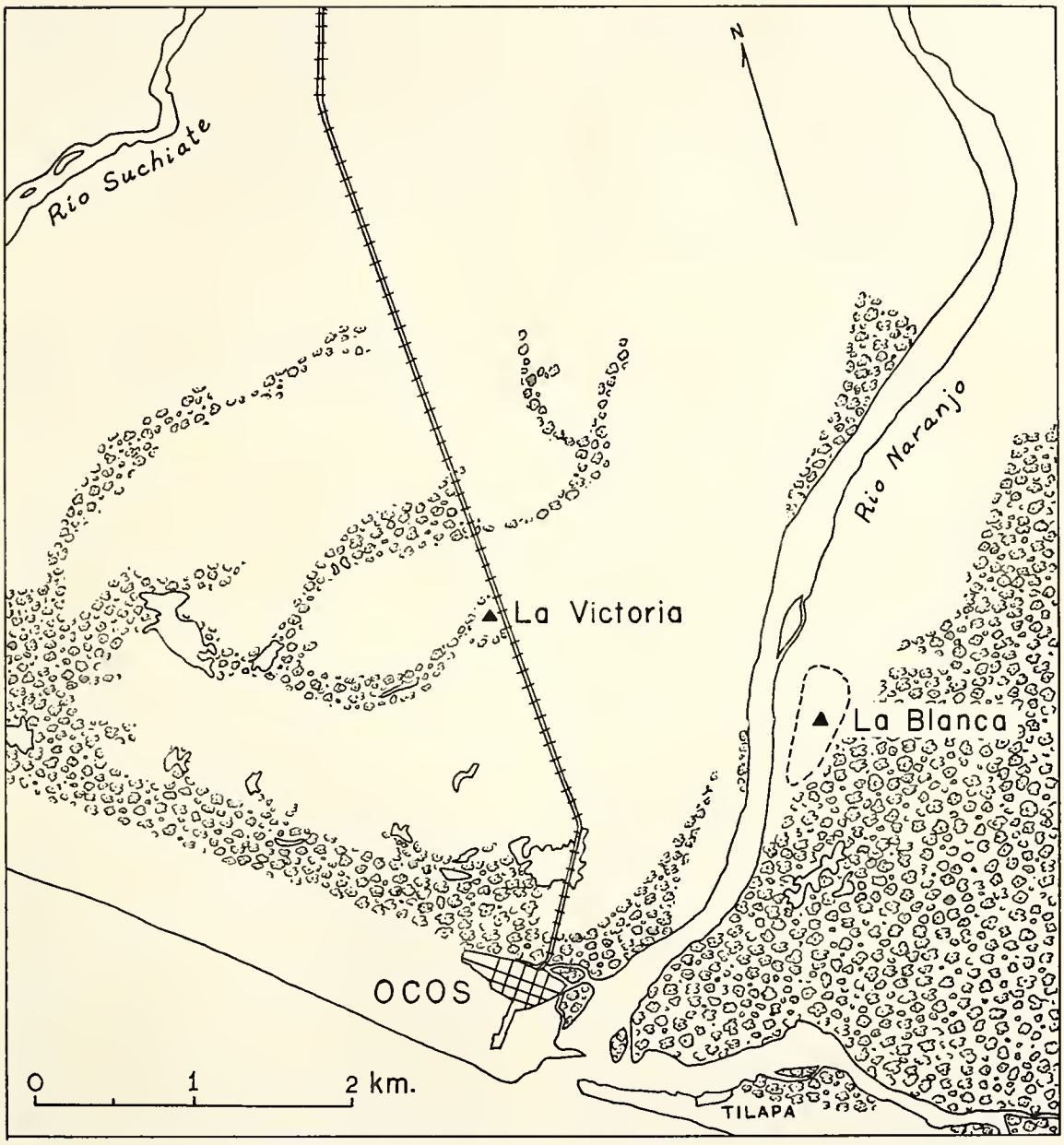

FIG. 2. Map of the Ocós area, based on aerial photographs. The site of La Blanca covers the area indicated by the dotted lines.

older surfaces and the gradual accretion of silts from the highlands. This is the most important part of the picture in the study of ancient settlement, for different soils have different potentials for maize farmers. This will be discussed in more detail later.

Guatemalans make two kinds of geographical distinctions in speaking about the Pacific side of the highland mountain chain. Vertically, there are the *Boca Costa* and *La Costa*. The former, termed the "Piedmont Zone" by McBryde (1947, p. 5), lies between 200 and 1000 meters and is the famous coffee country of the Republic. This relatively narrow zone

is sharply dissected by streams and rivers rushing down from the sides of the volcanoes and has a lush vegetation resulting from an extraordinarily high annual rainfall. *La Costa* is the far broader, flatter plain at the foot of the *Boca Costa,* with more sluggish rivers and greatly reduced precipitation. Horizontally, there are: the *Costa de Guazacapán,* a narrow zone between the mountains and the sea near the El Salvador frontier; the *Costa Grande,* a much wider plain in the central part of the coast; and the *Costa Cuca,* the somewhat less broad zone to the west. The site of La Victoria lies in both *La Costa* and the *Costa Cuca.* It is important to note here that while there are microclimatic and microgeographical changes between the horizontally differentiated zones, the contrast between the vertical zones is major.

CLIMATE

McBryde (1947, map 6) has given the Köppen classification of Awgi to the Guatemalan coastal plain itself. "A" means tropical, with the mean temperature of the coldest month more than 18° C. (64.4° F.); "w" means that the winter is dry, with nearly all the rainfall during the summer months; "g" means that the climate is of the Ganges type, the hottest month coming before the summer solstice; and "i" stands for isothermal, that is, little annual variation in monthly temperature means. The Köppen designation hardly tells all that would be pertinent to problems of tropical agriculture in this area, for one of the most important factors is that of amount of annual rainfall.

The sharp decrease in rainfall as one proceeds from the mountain chain across the *Boca Costa* and down across the great coastal plain to the Pacific has already been mentioned. While the Guatemalan highlands themselves do not have a very high precipitation (Guatemala City received an average over a twenty-two year period of 1248.8 millimeters or 49.1 inches annually), the coffee zone of *Boca Costa* receives a tremendous rainfall. The annual average precipitation for Sta. Cecilia, a coffee finca, was 4635 millimeters or 182.5 inches. At the elevation of about 1000 meters, the precipitation is always around 4000 millimeters. Between this altitude and 200 meters, it drops to about 3000 millimeters annually. In Retalhuleu, which is about at the juncture between the *Boca Costa* and the plain, the average was 3055 millimeters or 120.3 inches. Tapachula, in eastern Chiapas, about 45 kilometers north of La Victoria, has a precipitation of 2392 millimeters or 94.2 inches, but its altitude is only 168 meters. At even lower elevations and nearer the coast, rainfall can hardly be said to be abundant. Ayutla, 20 kilometers from the Pacific and only 17 kilometers north of our site, has a sixteen-year average of 1364.0 millimeters or 53.7 inches. No figures are available for La Victoria or Ocós, but Champerico, a port 38.5 kilometers to the southeast, registered an average of 960.2 millimeters or 37.8 inches annually, less than a fourth of the annual precipitation of the *Boca Costa.* From this, one can assume that the amount of rainfall available to the inhabitants of La Victoria for farming must have been not much more than 45 inches annually, or about 1150 millimeters.

This is surprisingly little, and of course rules out all possibilities that certain crops of great importance in Pre-Columbian Middle America such as cacao, which requires no less than 50 inches of rain annually and preferably between 70 and 100 inches, could have been grown by the farmers of La Victoria (Jolly, 1957, pp. 1–6). However, most of the Petén north of Lake Petén Itzá gets little more than Ayutla, and yet this was sufficient for the maize farmers of the past. It will be shown that the present-day inhabitants of the La Victoria area manage very well with this amount of precipitation. The all-important factor is that this rain arrives at set times so that the farmers may count on it during the maturation of their crops. As in practically all of this part of Middle America, there is a summer rainy season and a winter dry season. As a glance at the figures for Ayutla will show, the rains arrive in late April or early May, and last until the end of October. In November it may rain a little, but in almost all years rain never falls from December through March. The land becomes exceedingly hot and dusty, the dirt roads degenerating into wallows of dust sometimes two feet deep. The rains usually come as a deluge, turning the dust into mud and

often flooding the land. There are two peaks of maximum precipitation during the wet season, one in May and the other in September; between these months, especially in July and August, there may be very little precipitation. This drier interval is known on the coast as the *canícula* or *veranillo* ("little summer"). The same annual pattern is repeated over a large part of Middle America, but is especially marked in the Ayutla-Ocós area. The downpours of September are even greater than those of May. The rains along the Pacific coast are accompanied by tremendous thunderstorms, vividly described in the *Descripción de la Provincia de Zapotitlán y Suchitepéquez* (Estrada, 1955, p. 70).

> . . . after two or three in the afternoon through most of the night it does nothing else but pour water, and this each day and in such a manner and with such fury that nothing can compare with it, not even when it rains with great violence in Spain; and, what is worse, it arrives with such horrible thunder and bolts of lightning that it is fearsome to live through the six months that this lasts in this province.

In spite of such torrential downpours, the overall precipitation at La Victoria cannot be considered great.

The Pacific coast of Chiapas and Guatemala is one of the hotter tropical regions of the world; an outstanding feature of this high temperature level is its constancy, both day and night and throughout the year. It is only in the *Boca Costa* and right on the seashore that much relief can be had for the non-adapted traveler. At the Finca Sta. Clara, 14 kilometers north of La Victoria and not far from Ayutla, maxima of 100° F. (37.7° C.) were recorded for each of the months from March through July 1958. Maximum temperatures are only 4° F. lower from August, when the cooling effects of the summer rains are felt, through November or December. Then temperatures again begin to climb to their former level. The worst heat is in April, just before the rains break. Nighttime temperatures at no time during the year at Sta. Clara fall below 62° F. (16.7° C.), and in the late summer and early winter months stay above 70° F. (21.1° C.). While it is slightly cooler at La Victoria due to its proximity to the sea, the annual temperature range is probably as undifferentiated as is that of Sta. Clara, indicating that growing seasons are not cut short by seasonal falls in temperature as in parts of the highlands.

Does the climate ever fail the maize farmer in the La Victoria area? This is an important point, for a frequent occurrence of bad years could seriously interfere with settlement on a neolithic level in this region. Rainfall failures have in the past been severe in the Petén, leading to great hardship for the scattered farmers of the present time. This factor has often been brought up as a solution for the problem of the collapse of Petén civilization. In spite of the low normal annual precipitation at La Victoria, a twenty-four year record for neighboring Ayutla, from 1934 through 1957, shows that precipitation fell below the 1000-millimeter mark only 7 years. There was a pretty thorough drought in 1952, when only 500 millimeters was recorded. Some unusual years have only light rains in May, but increased midsummer precipitation to make up for this; however, when these mid-summer rains never come, the total rainfall may be dangerously low. Middle American farmers, however, usually keep a good surplus to tide over bad years, and it is only after more than one such year that real hardship is felt. The Ayutla record indicates that the ancient inhabitants of La Victoria could count on a highly uniform precipitation pattern in planning sowing times. The same uniformity in precipitation pattern is enjoyed by the present-day farmers of the Ayutla-Ocós region.

In accord with the gradual reduction of annual rainfall as one approaches the coast itself, the vegetation, an exuberant rain forest in the coffee country of the *Boca Costa*, is almost xerophytic in the La Victoria zone. While the extensive forest clearance under way since the sixteenth century has played its part in the desiccated appearance of the native flora, climatic aridity has surely been the most important factor here. Fan palms are today the most characteristic tree in the landscape, with occasional *cedros* and other deciduous trees. Near the lagoon system of today and in the regions once inhabited by now buried estuary systems are dense thickets of brush and cactus, turning into mangrove near water (fig. 2). At any rate, the ancient inhabitants would never have had to struggle with a dense tropical forest to clear fields for planting.

FAUNA

Surprisingly enough, in spite of the destruction of natural cover in much of this cattle country, game and other land animals are said by the local people to be fairly plentiful. The most prevalent of these are as follows:

White-tailed deer (*Odocoileus virginianus*)
White-lipped peccary (*Tayassu pecari*)
Nelson paca (*Cuniculus paca*) (local name: *tepescuintle*)
Agouti (*Dasyprocta punctata*)
Spider monkey (*Ateles geoffroyi*)
Cottontail rabbit (*Sylvilagus floridanus*)
Squirrel (*Sciurus variegatoides*)
American porcupine (*Coendu mexicanus*)
Pocket gopher (*Heterogeomys hispidus*)
Opossum (*Didelphis marsupialis*)
Puma (*Felis concolor*)
Jaguaroundi (*Felis yagouaroundi*)
Jaguar (*Felis onca*)
Tayra (*Tayra barbara*)
Hooded skunk (*Mephitis macroura*)
Weasel (*Mustela frenata*)
Coati (*Nasua narica*)
Gray fox (*Urocyon cinereoargenteus*)
Mexican three-toed anteater (*Tamandua tetradactyla*)
Nine-banded armadillo (*Dasypus novemcinctus*)
Vampire bat (*Desmodus rotundus*)

In this list, the present-day peoples of Guatemala would consider only the cats, skunk, weasel, fox, and bat as unfit for human consumption. It can be presumed that the ancient inhabitants of La Victoria also drew on such an extensive fauna for food.

The bird life of the La Victoria region is extraordinarily plentiful, due to the situation of the site between the shore-and-lagoon and true inland zones. Anthony, for instance, collected 140 species of birds during his stay in the Ocós region (Griscom, 1932), many of which were wading shore birds. The concept "game bird" belongs to the recent history of northwestern Europe and modern America; in other areas and other times, even the so-called "songbirds" are considered good food (as a nursery rhyme reminds us). It is a good assumption that only the fish-eating sea birds and the predatory and/or scavenging species were unpalatable to the ancients. Some of the better-eating birds (from our point of view) are the Muscovy duck (*Cairina moschata*), found in fresh- or brackish-water marshes, and the Black-bellied tree duck (*Dendrocygna autumnalis*), from the same habitat. The mangrove thickets lining the lagoons are full of birds today, and must have been so in the past; many of these are waders, like the American common egret (*Casmerodius albus egretta*), which Anthony reports was kept in his day in the village of Ocós for its feathers.

In his classification of the birds of Guatemala, Griscom (1932, p. 35) places the avifauna collected by Anthony within the Central American Arid Tropical Fauna, and interestingly enough, points out that it is analogous to the Equatorial Arid Fauna of the Pacific coast of Ecuador. These two areas were once culturally linked as well.

Reptiles and amphibians would have been important to the diet of the ancients, as they are to that of the villagers today. In the immediate neighborhood of the site, iguanas (*Iguana iguana*) are omnipresent, and may be seen scurrying across the dusty road and paths during the heat of the day. They are a highly desired source of protein today, not only for their meat but for their eggs. The latter, in fact, are considered the greatest delicacy (which they are), and the local people will extract the eggs from a live female iguana, allowing it to escape after the operation so that it may produce more eggs. Iguanas bearing many scars on their bellies from such treatment are supposed to be common on the south coast. Whether snakes were utilized or not as food by the ancients is not known. There are a number of highly poisonous species, which constitute a menace for foot travel in this country, including the coral snake (*Micrurus nigrocinctus*), the *cantíl* (*Agkistrodon bilineata*), and several kinds of rattlesnake. Turtles, however, were to the early peoples one of the most important sources of protein food; as mentioned before, the region was known to the Aztec tribute-collectors as *Ayotlan*, "the land of the turtle." Our workers could name six species, most of them eaten, which include a sea turtle known as *parlama*. The lagoon and estuary system today, and the much more extensive system of the past, were full of turtles which could be trapped. Extensive shooting in recent times by hide collectors has

greatly reduced the caymans and crocodiles which in the sixteenth century were so plentiful as to obstruct canoe traffic in the lagoons (*see* Appendix A). They would have been to the ancients a drawback rather than an asset.

The basis of the economic life of the modern village of Ocós is fishing, which is entirely confined to the lagoon and estuaries (fig. 44); fishermen never venture out in their dugout canoes beyond the coastal bar. Both small hand nets thrown from the canoes and hook-and-line fishing from the canoes or from the lagoon shore are the methods utilized today. The variety of fish caught is astonishing. A fisherman, who was our neighbor in Ocós, named 63 kinds in the space of a half hour. The most important food species today include the Red porgy (*Lutjanus colorado*), several species of snook or *robalo* (*Centropomus*, sp.), shark (*Carcharhinus* sp.), mullet (*Mugil cephalus*), various species of *mojarra* (*Cichlasoma* sp.), catfish (*Galeichthys assimilis*) and *G. caerulescens*), the *dormilona* (*Awaous transandeanus* and *A. taiasica*), sawfish (*Pristis* sp.), and *roncador* (*Pomadasys crocro*). According to my informants, the porgy and snook can be caught in the lagoon during the dry season; these leave for upstream during the rainy season. In contrast to the early inhabitants of La Victoria, the modern villagers ignore a potential source of food by not actively collecting the mollusks of the lagoon and shore. Shrimp are netted (the locals recognize three varieties). Shrimp were described in a sixteenth-century account as the most important product of the Soconusco littoral (*see* Appendix A). Various kinds of crabs are also taken. The *chichimeco* crab burrows under sand on the beach and is dug out by women and children. Other varieties include the *nazareno*, found under mesquite bushes, the *pinta*, and the *azul*.

Fishing as a way of life in this part of the coast is of great importance. In the *municipio* of Ocós, which includes not only the village but also the farming and cattle country to the north as far as La Zarca, there are 64 fishermen as opposed to about 600 farmers. A ratio of one fisherman to 10 farmers is probable for this same region in aboriginal times.

SOILS AND AGRICULTURE

In the study published by the Servicio Cooperativo Interamericano de Agricultura (n.d.), the soils of the La Victoria zone, away from the actual littoral itself, are classified with the Bucul series; that is, as deep, poorly drained, and developed in marine or alluvial deposits beneath a forest cover in a humid-dry climate. In spite of the poor drainage, "this is one of the soils of major productive potentiality in Guatemala" (*ibid.*), and its development for the production of lowland cash crops is suggested.

What soil surveys and testing do not tell us is how productive the soil is in actuality. The testimony of our workmen at the site, all of them milpa farmers, is that the alluvial soils of this zone are highly fertile. There are, in fact, three corn harvests from the same plot of ground each year. Moreover, the soil is so good that it is not necessary to rotate the milpa; the same field is cleared of weeds and brush before each planting and burned every year. The first sowing is in the beginning of May, with the harvest in August; the second is in the beginning of September, with harvest in the opening days of December; shortly after this is the third planting, which is harvested in March. Not all milpas are, of course, of equal quality. A good milpa, for instance, will yield 15 *cajas* per 10 *cuerdas*, while a poor milpa yields only one *caja* per *cuerda* (a land measure of something less than 1/5 acre). Each family requires a milpa of 20 or 30 cuerdas in extent (or between 4 and 6 acres).

As in most of Middle America, several varieties of maize are grown in the same plot. Among eight varieties grown by the present-day farmers, *jarocho*, with a large ear and white kernels, and *amarillo*, with a small ear and yellow kernels, are the most popular.

Other native crops grown today include beans (eight varieties), a very important source of vegetable protein complementing that of corn; tomatoes (four varieties); peppers (nine varieties), rich in Vitamin C; sweet manioc (four varieties); sweet potatoes (three varieties); gourds (two varieties); squashes (five varieties); *achiote* (*Bixa orellana*), used as a

seasoning. Naturally, numbers of native fruit trees are utilized, as are the palms. The latter provide oily nuts (from the cohune palm) and even a powerful and illegal fermented drink (made from the juices which fill up the stump of a felled *coyol* palm).

If the environment was approximately the same for the ancient inhabitants of La Victoria, as farmers they would have had extremely favorable conditions for food production. The Pacific coast lowlands even today are more advantageous for corn agriculture than the better-known Guatemalan highlands. The triple harvests make it a certainty that the corn production per land unit in the coast will be higher every year than in the highlands which have but a single harvest. Recent figures (Dirección de Estadística, 1956, p. 35) clearly indicate this. A comparison of the average annual yield for six departments which are entirely within the highland region with the yield for three departments which lie wholly within the Pacific lowlands shows 8.5 *quintales* per *manzana* for the former and 17.3 *quintales* per *manzana* for the latter. The results of this can be seen in the huge quantities of corn, still on the cob, shipped up at frequent intervals to the highlands via the antiquated railroad which serves the Ocós area. In other parts of the Pacific lowlands, this surplus travels to the highlands in overloaded trucks. In simple terms, the Pacific coast is, and probably was in the past, twice as productive as the higher regions for corn farmers.

SUMMARY

La Victoria was situated so that it could draw upon two distinct natural environments: the littoral and the contiguous farming country to the north. In the former, a riparian way of life based on the rich fauna, including amphibians, fish and mollusks, of the lagoons and estuaries was possible. To a people with the proper level of technology, the inland environment would have offered the possibilities of a vastly successful food production based on corn-and-beans agriculture. A cultural adaptation completely confined to riparian life with hunting also practised would be considered from a developmental point of view to be Archaic (Willey and Phillips, 1958, pp. 104–11). One based on intensive food production but not yet civilized would be Formative. There is abundant archæological evidence from La Victoria that during its major occupation, the early inhabitants of this part of the Pacific coast were taking advantage of both kinds of adaptation, that is, enjoying the best of both worlds.

Chapter III

HISTORY

SOCONUSCO AND ITS BOUNDARIES

IN ANCIENT times, the area in which Ayutla and Ocós lie was part of the Province of Soconusco (Xoconochco), the most southeasterly territory of the Aztec Empire. All early sources agree that the eastern boundary of Soconusco, and therefore the very edge of the Empire, was defined by the village of Tlilapa, which must have been near the modern Tilapa River, some 17 kilometers east of Ayutla. Beyond Tlilapa were the provinces of Zapotitlán and Suchitepéquez. Most of Soconusco lay within the modern state of Chiapas, however. It was bounded on the south by the Pacific Ocean, on the north by the Sierra Madre de Chiapas, and on the west by the Province of Tehuantepec. Juarros (1936, vol. 1, pp. 18–19) informs us that the area covered by Soconusco comprised 58 leagues along the coast with a width of 16 leagues from the sea inland to the mountains.

THE PIPIL MIGRATIONS

Possibly the earliest event in the history of Soconusco of which we have notice relates to the mysterious migration of the inhabitants of the "*Despoblado* of Soconusco" to the western part of the Provinces of Nicaragua and Costa Rica, as described by Torquemada (1943, vol. 1, pp. 331–33). According to the latter's Nicaraguan informants, the Chorotega of the Nicoya Peninsula were descended from the Cholutecas of Soconusco, and in early times lived inland from the Sierra Madre de Chiapas. The Nicarao described themselves as Mexicans from Anahuac who in former times lived on the Soconusco coast. Both these tribes were flourishing in peace when a great army of "Olmecas" descended upon them from the direction of Mexico. These invaders were the ancient enemies of those who lived in the "*Despoblado*." After subjugating the inhabitants, the "Olmecas" extracted a great tribute, which included women, slave laborers, and two boys from each town per day. The people of Soconusco suffered under this tyranny for many years and finally, under prodding from their elders, decided to migrate. They crossed through Guatemala, in which, "when they found a good place to settle, they settled; and of this generation are those that in the nation of Quauhtemallan are called Pipiles, as are the peoples which they call the Eçalcos (Izalcos). . . ." (Torquemada, p. 333). On the way, the elders died, but before so doing, directed the tribes (which surprisingly included the "Olmecas") to their various destinations in Nicaragua.

If Torquemada was correct, the ancestors of the Pipil, who were probably a confederation of Nahua-speaking peoples, must have once occupied at least a part of Soconusco. The date of this semilegendary migration and that of the dispersal of the Pipil themselves is still uncertain, but Thompson (1948, pp. 49–51) feels fairly sure that the Late Classic sculpture of the Sta. Lucía Cotzumalhuapa region on the south coast of Guatemala can be ascribed to these people. One of the known instances of the survival of Pipil speech was Salvadoreño; according to Swadesh (1954–55), the lexicostatistic divergence between that language and Mexihca is 10 centuries, a date of about A.D. 950. This would be somewhat later than the diffusion suggested by Thompson.

THE QUICHE WARS

It must have been in the late fifteenth century when the rich lands of Soconusco aroused the interest of the Quiche of Guatemala. The wars of conquest undertaken by King Quicab, who was of the sixth generation of Quiche kings, extended as far as the eastern part of

the province. The "Title of the Lords of Totonicapán" describes such wars merely as "measurings" of his kingdom (Chonay and Goetz, 1953, p. 194):

> He went to *Cahacalcat Nagual,* beside the mouth or passage of the *Samalá;* from here to Siván and, accompanied by all the valiant warriors, arrived at the mouth of the *Reve,* an arm of the sea. There ended the measuring of the lands that the Yaquiab were to occupy. There they planted two trees, one that served as a landmark for the *Yaquiab* and the other for the *Ayutar and Mazatecos. . . .*

The *Reve* described in this passage must have been the Pampas El Guamuchal, now an immense system of marshes and estuaries just east of Ocós, but then perhaps less clogged with silts and vegetation. Here Quicab settled the Yaqui branch of the Quiche tribe. The Ayutar and Mazatecos were, of course, the inhabitants of Ayutla and Mazatlan in Soconusco. The territory taken by Quicab was Cakchiquel, according to one source (Recinos, 1957, p. 78); that tribe was forced to give to the Quiche king the lands through which flowed the Samalá, Nil, Xab, and Ucuz (Ocosito) rivers, which were described as being of much profit to Quicab, providing him with "much fish, shrimp, turtles, iguanas, and many other things which they took from these rivers" (Recinos, 1957). These passages clearly indicate that at one time the coastal land to the east of the Pampas El Guamuchal was once Cakchiquel; the Pampas themselves and what lay west were part of Soconusco.

The Quiche king, Mahocotah, extended his conquests into the Province of Soconusco itself. After subduing a place called *Nahuatecat,* which may have been the same *Cahacalcat Nagual* already taken by Quicab some years before, he attacked *Ayutecat* (Ayutla) and captured 200 natives of that place. He forced a payment from the people of Ayutla of "many pearls, gold, emeralds (probably jade), and many riches" (Recinos, 1957, p. 80). Mahocotah then turned his attention to Mazatlan, which he entered with his forces at noontime. The Mazatecos had no stomach for a fight after seeing the destruction of Ayutla and gave themselves up in peace, rendering food to the king, plus offerings of fish and mantles; each Mazateco brought a stone to build a house for the conqueror. Following the subjugation of Ayutla, Mahocotah headed northwest to *Tapaltecat* (Tapachula), which he conquered after killing 40 troops of that region. The two *principales* of Tapachula, Quep Ju and Gutzin, gave themselves up to the Quiche leader so that their people would not have to pay tribute. Mahocotah promised not to exact tribute and had the two men bound and carried off in his march. These two were later returned to their own people; at any rate, the Quiche did not seem to have retained eastern Soconusco in their power.

THE AZTEC CONQUEST

It perhaps was as well for them that they did not, for at almost the same time the expanding Aztec Empire had designs on the same territory, and a conflict between them and the Quiche might have been disastrous to the latter. The Emperor Ahuitzotl (reigned 1486–1502), ruler of the Triple Alliance, used the shallowest of pretexts to take over this land and its wealth in cacao plantations. According to the chronicler Tezozomoc (1944, pp. 370–76), the *Oztomeca,* the merchants of the recently conquered settlements of the Tehuantepec region, in order to fulfill the tribute requirements of the Aztecs, went through the coastal villages of Soconusco to see what they could get out of the peoples there. However, the residents of the four settlements of *Xolotlan, Ayotlan* (Ayutla), *Mazatlan,* and *Xoconochco* gave them a cool reception, accusing them of being no more than conquered vassals of the Culhua Mexicans. With that, they slaughtered the merchants, only two youths escaping.

These two arrived at the capital, where they reported to Ahuitzotl. The Emperor immediately began preparations for a "punitive" expedition, in which all three kings of the Triple Alliance were supposed to participate, although Duran (1951, vol. 1, pp. 403–404) says that the king of Texcoco, Nezahualpilli, being weak and timid, pleaded that he was too old and excused himself from the undertaking. Nevertheless, Ahuitzotl gave orders that every able-bodied man in Mexico should take up

arms against the four towns on pain of death, showing the importance he lent to the conquest of Soconusco. A tremendous army was gathered and marched, under the leadership of the Emperor himself, via Chalco, Cocotitlan, and Oaxaca to Tehuantepec. Ahuitzotl reassured the chiefs of Tehuantepec that he had no intention of staying long, as they were only en route "to take vengeance on the traitors and cruel murderers."

At the environs of the enemy territory of Mazatlan (the modern Mazatán), the Mexican army set up camp and headquarters. The quarters of Ahuitzotl, the royal standard on top, were surrounded by the billets of his officers. The next day the Emperor delivered a pre-battle speech to the chiefs of the various tribes in the army, encouraging them to tell the troops how weak and cowardly the enemy was, how rich they would all become, and how poor they were at home. The day following that, the attack began on Mazatlan, which was totally destroyed by noon. The old men, the women, and the children ran off into the forest, where many died from heat and thirst and from the attacks of wild animals. On the next day Ayutla was in its turn totally demolished "and there was no one with whom to fight any more." The same fate befell Xolotlan. Faced by such a threat, the inhabitants of the settlement of Xoconochco gave up without a fight and offered themselves as vassals and tributaries to the Mexicans.

The surviving chiefs (old men called *Cuauh Huehuetques*) of the four chastized pueblos of Soconusco went before the Mexicans, then, and to save their lives and those of their people shouted their guilt and offered to pay tribute of "gold, emeralds, and many kinds of rich *chalchihuitl* (jades), fine plumage, skins of all kinds, and cured tiger skins . . . very clear crystal enameled in colors, and cacao of all classes." The Mexicans answered that they would kill them anyway, to which the frightened chiefs replied that if they were all killed, who would work to produce the tribute they had promised to render? Furthermore, they would even offer many other kinds of rare gems, including a very small stone called *Tlapapalxihuitl*, and fine shells, tiger-spotted, blue, yellow, and white in color. Finally, Ahuitzotl gave them their pardon and told them to remain true to their promises, paying regular tribute and guarding their frontiers. Their borders, they informed the Emperor, were on one side with the natives of Guatemala, where there were "very great mountains and rivers, the mountains rough and fearful because of the large tigers, many snakes, and full rivers." Sixty leagues away (to the north) they bordered on the territory of the peoples of Nolpopocayan, their enemies, who lived near the volcanoes Tlacochcalcatl and Tlatlatepecatl.

Thus, the Empire of the Culhua Mexica gained its richest province. The upper class nobility and gentry of Mexico were great consumers of chocolate, and the best cacao was that of Soconusco. As a kind of pan-Mesoamerican money, cacao gained even more prestige. It was certainly an economic motivation, not desire for justice, which prompted Ahuitzotl to take Soconusco. Duran (1951, vol. 1, p. 404) says that Ahuitzotl fell ill a few days after his return from the expedition from a disease picked up on the south coast, wasted away to skin and bones, and died. Accordingly, the Soconusco expedition must have been in 1501 or 1502. However, Torquemada (1944, vol. 2, p. 193) informs us that the Emperor actually died from the effects of a blow on the head which he had received three years before in the great flood of the city. We would probably not be far off in placing the conquest of Soconusco around 1500.

The Province of Soconusco continued to pay tribute right up until the arrival of the Spaniards. Detailed information on this is provided by the Tribute List of Montezuma II, the Codex Mendocino (Barlow, 1949, pp. 97–98). Soconusco paid tribute only twice a year, as the collectors had to come so far. These men traveled by a route which ran south and east of the Nudo de Cempoaltepetl. There were eight tribute-paying pueblos in the province, of which Barlow has been able to identify seven with modern place names: Acapetlatlan (Acapetagua), Ayotlan (Ayutla), Huehuetlan (Huehuetán), Huiztlan (Huixtla), Mapachtepec (Mapastepec), Mazatlan (Mazatán), and Xoconochco (Soconusco San Benito). The eighth was Coyoacan. Each of these pueblos appears with its rebus hieroglyph together with the others on one page of the Codex

Mendocino; the hieroglyph for Ayotlan, which means "the land of the turtle" in Nahuatl, was, of course, a turtle. The tribute shown (Barlow, 1949, p. 98) was valuable, indeed:

2 lip plugs of light amber with gold settings
2 long strings of jade beads
200 loads of cacao
1,400 bunches of feathers, blue, red, and green
160 whole skins of birds (identified by Cooper-Clark as *Cotinga amabilis* Gould)
800 handfuls of yellow parrot feathers
40 ocelot or jaguar skins
800 pottery vessels for drinking cacao
2 brick-sized chunks of clear amber

To ensure that the Province would continue to pay such tribute and to guard its borders with Guatemala and Chiapas, the Aztecs maintained a garrison at the town of Xoconochco (Diaz, 1955, vol. 1, p. 290; Barlow, 1949, p. 98) wherein resided two governors in the reign of Montezuma II, one called 2 *Quauhtli Tezcacouatl* and the other *Atzin Tlilancalqui*, according to the Codex Mendocino.

THE COLONIAL PERIOD

The Spanish conquest of Soconusco was sudden and final. On the 6th of December 1523, Pedro Alvarado left Mexico with an army of 300 Spanish soldiers and 300 native auxiliaries for the subjugation of the lands bordering the Pacific coast and of the country of Guatemala. The expedition, as Bernal Diaz tells us, passed through Tehuantepec, where the Zapotec inhabitants received them peaceably, and then on to the Province of Soconusco, "which was in that time well populated with more than 15,000 citizens" (Diaz, 1955, vol. 2, p. 122). Soconusco appears to have put up no resistance, and offered to Alvarado a present of gold and declared themselves Spanish vassals. Probably they remembered only too well the disasters of war visited upon them by the Quiche and the Mexicans. In fact, Alvarado and his army engaged in their first large battle only after they had left Soconusco and had reached the town of Zapotitlán, within the province of that name. There the Spaniards began the struggle that was to end with the conquest of Utatlan and all of Guatemala.

The almost immediate result of incorporation of Soconusco into the Real Audiencia de Mexico was the tremendous decline in population of the province. Although Bernal Diaz speaks of a population of 15,000 at the time of the Alvarado expedition, with their extensive and profitable cacao plantations, by 1574 there were no more than 1,800 Indians left (Ponce de León, 1882, p. 426). At that time, the governor suggested that the Crown transfer at least 4,000 Indians to settle in Soconusco. A Royal Decree of the 15th of September, 1585, states, "His Majesty, taking into account that the Province of Soconusco has been depopulated, grants that the Indians who wish to emigrate to there need not pay tribute for one year" (Pardo, 1941, p. 141). When Fray Alonso Ponce crossed the province in April 1586, he was passing through a virtual wilderness, with scattered settlements here and there. There were still less than 2,000 Indians, and the cacao trade had largely died out and passed into the hands of the inhabitants of Suchitepéquez, further east in Guatemala (Ponce, 1948, p. 8). What was the reason for such a disastrous decline? Bernal Diaz, who visited Soconusco in 1525 and then again in 1568, was told by the survivors that some had died of pestilence, but that another cause was the refusal of the authorities—including the clergy—to allow the Indians any time to tend their *cacaguatales* so that the cacao trade, so vital to the natives, had died out. While the loss of cacao revenue would perhaps result in considerable hardship for the natives, the introduction of exotic diseases such as smallpox and measles certainly played the dominant role in this tragedy.

Much information on the Spanish administration of the province and the way of life of the Indians is available in the *Relación de la provincia de Soconusco* of 1574 (Appendix A). The governor resided at Huehuetlan, but there were only 20 other Spanish households in the town. The capital was later moved to Sto. Domingo Escuintla, then in 1794 to Tapachula. Evidently, on account of the depopulation of the province, there were in 1574 no *encomiendas*, which must have spared the Indians much misery. What is surprising is that as early as this date four cattle ranches had already been established, beginning the process

which was to eventually strip all this land of its forest cover.

Trade with neighboring Tehuantepec, according to the *Relación*, was carried out by means of canoe travel via the coastal estuary system, although Governor Ponce tells us that the numerous alligators interfered with this traffic. Shrimp were taken from the estuaries, but the natives did not bother with other kinds of fish, a statement which is hard to believe since fish was among the offerings rendered to Mahocotah after the Quiche conquest. The major economic activity in early colonial days was cacao production; 5,000 cargas of cacao were exported from the province annually, with a value of 100,000 gold pesos. Of this, 1,000 cargas came from the province of Suchitepéquez, bound for Mexico. Ponce also mentions that the land was fertile for maize. The population of about 1,800 Indians was scattered in 40 small settlements which were strung along the main Soconusco road to take advantage of the trade.

The chronicler seems to have been most impressed, however, with the things that the province did *not* have, a list which included native sources of gold, silver, iron, mercury, lead, copper, tin, and brass. Salt mines were also lacking, but we know that in later times at least, the Indians extracted salt from sea water. The absence of gold is curious, for in the early colonial period, Soconusco paid an annual tribute of eight gold disks worth 25 pesos apiece (Barlow, 1949, p. 98); moreover, the known provenience for several worked gold disks of the Post-Classic Period is eastern Soconusco. This gold may, of course, have been traded up from Panama.

The political history of the province in the colonial period is confused, for it was transferred back and forth between the Real Audiencia de México and the Real Chancillería de Guatemala; it eventually remained in the hands of Guatemala until 1842, after which all of Soconusco became part of the Mexican state of Chiapas. In the treaty of 1882 the territory east of the Ayutla or Suchiate River was incorporated into the Department of San Marcos, Guatemala. During these centuries, the indigenous population of Soconusco declined even further, and new immigrants, white, Negro, and Indian, largely absorbed the remnants. Juarros, whose compendium was completed in 1818, states that cacao was still the mainstay of the economy even at that date (Juarros, 1936, vol. 1, pp. 18–19). Along with cacao, fishing in the rivers, estuaries, and off the sand bars was of great importance. Other products mentioned by Juarros are indigo (which replaced cacao as the main article of commerce in the coastal departments of Guatemala), the food coloring *achiote*, vanilla, *leche de María* (a medicine?), cotton, maguey fiber string, and "2,000" kinds of medicines. Salt was produced by solar condensation from sea water. There were then 9,078 inhabitants living in 20 *pueblos*.

MODERN HISTORY

By the mid-nineteenth century, the people of the Ayutla area were a mixture of native Indians and Negroes. They were engaged in fishing, the extraction of salt from the sea, and the manufacture of string. While they were able to speak "La Mexicana," the usual language was Spanish (Pineda, 1852, p. 395). There were then only 27 families, comprising 151 persons, in the area. Maize agriculture is not mentioned, but it must have been of importance. There is also no word of cattle ranches, although these had existed in Soconusco since the sixteenth century. Toward the end of the nineteenth century, a port was established on the coastal bar at the west of the mouth of the Río Naranjo. The port was named Ocós, evidently from an hacienda of that name to the northeast, and became the most important on the Pacific coast since it served as an outlet for the dominant city in Guatemala at that time, Quezaltenango. A road and a railroad spur line were extended down from Ayutla to serve it. However, the earthquakes which accompanied the explosion of Santa María volcano in 1902 ruined Quezaltenango as a commercial center. A tremendous shock in that year lifted the whole port of Ocós out of the water, leaving a freighter high and dry. Immense amounts of volcanic ash extended the beach out even further. From that date, Ocós

has been merely another quiet fishing village with thatched huts and coconut palms; the old pier has long since been buried in the black volcanic sands of the ever-growing beach.

In the last half-century a small immigration of rural Ladinos from both highland and coastal departments of Guatemala into the Ayutla-Ocós region has taken place. Some of these have come in as ranch hands, others as *milperos*, but most as laborers in the recently established banana plantations to the east of the Ayutla-Ocós road. The population will, however, probably never approach the density maintained in the old days of the Province of Soconusco, as it was before the Spanish Conquest.

Chapter IV

LANGUAGES

THE LANGUAGE spoken by the ancient inhabitants of Soconusco remains somewhat of a mystery to this day. The most reliable data are those provided by the Franciscan Commissary General, Fray Alonso Ponce, who crossed the province from west to east in 1586. Eleven leagues east of the Zapotec town of Xuchitlan (the modern Juchitán) he arrived at the pueblo of Izuatlan (Ixhuatán). From this town to the frontier of Oaxaca was spoken the Zoque language "which by another name they call Mixe, a language very different from Zapotec." This might have been Huave, which is tentatively placed by McQuown with Mixe and Zoque in a Mizocuavean group. The first settlement with Soconusco east of the border was Tliltepec (on the modern Tiltepec River); "those of that pueblo and almost all the others of that province speak a language which is very similar to Zoque, although it has some words (like) those of Yucatan" (Ponce, 1948, p. 7). At the same time, while the Indians of Soconusco had their own language, they used "Mexican" in their dealings with the Spaniards.

Another early source, Garcia de Palacio (1927, p. 72), states that in Soconusco, the languages were "corrupt Mexican and the maternal tongue, or *bebetlateca* (i.e., Huehuetlateca)." The latter was almost certainly the true name of the Mixe-Zoque language of this province. Confirmation of the presence of this language group on the Pacific coast of Chiapas is found in Burgoa (1934) who affirms that the Mixe used to control the greater part of Soconusco (Thompson, 1948, p. 10).

That Mixe-Zoquean had not entirely disappeared from Soconusco even in modern times was proved by the researches of Karl Sapper (reviewed in Sapper, 1927). In 1893, he collected a short vocabulary which he immediately recognized as akin to Mixe-Zoque, and which later came to be called Tapachulteco I. Both Lehmann (1915) and McQuown (1955) also see the Mixe-Zoquean (or Mizocuavean, including within this the doubtful Huave) affinities of Tapachulteco I. In 1910, Sapper, while preparing a paper on the languages of south Chiapas, found that his 1893 vocabulary had been mislaid, and asked the German vice-consul in Tapachula, A. Ricke, to forward him some new data. Both this new vocabulary and one gathered by Amadeo Johnston in 1888, also forwarded to Sapper by Ricke, turned out to be completely different from Tapachulteco I. To this new language, Tapachulteco II, Sapper added another word list collected by him in 1923. Lehmann, in his 1915 study, could see no clear affinities for Tapachulteco II, while McQuown (1955) tentatively places it with the Mayan languages of highland Guatemala and neighboring Chiapas. It still remains a puzzle, however.

An even further extension east of Mixe-Zoque was discovered in the town of Aguacatán, in eastern San Marcos, Guatemala. The German ethnographer Otto Stoll while living in Antigua collected a vocabulary from his native Aguateca cook. This language, now known as Aguateco II, was definitely placed as Mixe-Zoque by Lehmann (1915). Subsequently, on a trip to Aguacatán in 1883, Stoll, who had neglected to take along the old vocabulary, made a new list in that town. On his return, he discovered that it was entirely different from the former one. The second language, Aguateco I, is identified by Lehmann (1915) and McQuown (1955) as one of the Mam group of languages. In later visits to Aguacatán, Sapper was unable to discover any other language than Aguateco I (Sapper, 1927, p. 267).

Nahuat, the Mexican language which uses *t* in place of *tl*, was spoken throughout Soconusco until fairly recent times, testifying to the great migration out of Mexico that extended as far south as Panama. Among many other towns, Pineda (1852) lists Ayutla as

Nahuat-speaking in the mid-nineteenth century. Nahuatl itself was more restricted; our only evidence for its presence is found in a letter written by the *Señor principal* and three *alcaldes* of Huehuetlan, the language of the document being Nahuatl. Huehuetlan was the post-Conquest Spanish capital, and undoubtedly some of the native leaders transferred to there from the old Aztec provincial capital, Xoconochco, continued to use the old official language.

To the west of Soconusco were the Huave, possibly to be included with the speakers of Mixe-Zoque languages. The pre-Hispanic Chiapanec state lay on the other side of the Sierra Madre de Chiapas, and included within its borders the Zoque on the west, the ruling Chiapanec in the Central Depression, and the Mayan-speaking Tzotzil and Tzeltal in the east. The Chiapanec, interestingly enough, are Chorotegan speakers. Near the Guatemalan border around the town of Comitan, the Tzeltalan Tojolabal language is spoken. An interesting remnant language in this same area is Chicomultec, classified by McQuown (1956) as Huastecan. The dominant Mam of the Departments of Huehuetenango and San Marcos of western Guatemala also spill over into neighboring parts of Chiapas, but it is highly doubtful if they ever reached Soconusco in pre-Spanish times. Juarros (1936, vol. 2, p. 20) claimed that the *Señorio* of the Mam included Soconusco, and that the "Man or Pocoman" was the maternal language there. This is not only a confusion of two very distinct Mayan languages, but also probably represents a misreading of Torquemada's reference to the "Mangue" on the other side of the Sierra from Soconusco (*see* Vivo, 1942, p. 130). It is possible that following the depopulation of the province, Mam immigrants did come in to Soconusco, but this is not proved. Within the Mam area of eastern Chiapas is a tiny enclave of speakers of Motozintlec, a Mayan language which may be related to Mam.

Most of the Pacific coast of Guatemala, west of Puerto San José, from the statements made by the early chroniclers, would appear to have originally been Cakchiquel-speaking (Estrada, 1955, p. 73; Recinos, 1941, p. 78). Thompson, in his excellent discussion of the languages of this region (1948, pp. 7–10), is surely mistaken in not including the Provinces of Zapotitlán and Suchitepéquez within the Cakchiquel area, for we know that the Quiche in the fifteenth century took over land that was Cakchiquel all the way to the boundary of Soconusco. Significantly, there is still a small enclave of Cakchiquel speakers in the town of Mazapa, just north of the Sierra on the Chiapas side of the Guatemalan frontier (Waibel, 1946, p. 138), suggesting that Cakchiquel territory may have once extended far into country now occupied by Mam speakers.

Pineda (1852, p. 394) states that Tuxtla Chico, near Tapachula in eastern Soconusco, spoke Quiche in his day. Moreover, Waibel found that while Motozintlec was spoken in the valley of Motozintla, Mam and Quiche were used in the surrounding hill country. These two isolated occurrences of the language, far from the Quiche country of Guatemala, would appear to be remnants of the Quiche invasion, already described, through the lands of the western Cakchiquel and into eastern Soconusco and lands to the north, thus confirming the native chronicle.

The distribution of these languages has implications for the reconstruction of aboriginal history in this part of Middle America. The language of ancient Soconusco was certainly of the Mixe-Zoque group, and might be called, following the lead of Palacio, *Huehuetec*. At that time, Mixe-Zoque covered far more territory than it does today, probably including all of the Isthmus of Tehuantepec (and perhaps taking in the Huave), western Chiapas, Soconusco, and possibly considerable territory in neighboring Guatemala, both on the coast and in the highlands east of the headwaters of the Grijalva. In the great Mexican dispersal that may have followed the destruction of Tula, the Nahuat-speaking Pipil occupied Soconusco. Directly to the north of them, on the other side of the Sierra, were the Chorotegan-speaking Chiapanec. Eventually, both these were invaded by Torquemada's "Olmeca," who may have also been Mexicans like the Pipil, for the only languages along the route of dispersal south and east with affinities to the north and west are Chorotegan and Nahuat. This would imply that the "Olmeca" were one or the other, for Torquemada tells us that these migrated to the Nicaragua area with the

Pipil and the Chorotegans. Nahuat-speaking enclaves were scattered through southeastern Guatemala, Salvador, the Pacific coast of Nicaragua and Costa Rica, as far as the Sigua on the Atlantic coast of Panama. Chorotegan-speakers were found along the migration route on the Bay of Fonseca, the Pacific coast of Nicaragua, and the Nicoya Peninsula. Thus, there is good linguistic evidence for the tradition recorded by Torquemada.

The Nahuat diaspora and therefore the original Pipil settlement of Soconusco may have been around A.D. 950, according to Swadesh's already cited glottochronological date. The Pipil-Chorotegan migration from Soconusco took place, says Torquemada, as far back as the lives of 7 or 8 very old men, that is, perhaps anywhere from A.D. 950 to 1000. One might accordingly begin a Mexican period in Soconusco around A.D. 950, preceded by an era of unknown length dominated by Mixe-Zoque speakers. It was probably in the latter part of the fifteenth century that the settlements of eastern Soconusco, including Ayutla, were overrun by the Quiche kings. The final event of pre-Spanish Soconusco was the absorption of the province into the Aztec Empire at the end of the fifteenth century and the introduction of Nahuatl as the official language.

Chapter V

THE TOPOGRAPHY AND EXCAVATION OF LA VICTORIA

GENERAL APPEARANCE OF THE SITE

THREE kilometers north of the small coastal village of Ocós, the road which runs north to Ayutla cuts through the eastern edge of the site of La Victoria (fig. 2). Both this road and the narrow-gauge railroad lying about 15 meters to the east have apparently destroyed one or two mounds which must have formed part of the site. Remaining are ten very low, gently rounded mounds in the cattle pasture to the west of the road; one of these, Mound I, has been half carried away by road construction. These mounds, none of which is raised more than two meters above the surrounding land, are randomly distributed along a slightly elevated stretch of ground averaging about three meters above sea level and with a total extent of approximately 150 by 200 meters (fig. 3). To the northeast, west, and south are *bajos*, low depressions which fill with water during the summer rains; there are reasons to believe that these are remnants of a once extensive but now extinct lagoon system. Presuming that all or most of the mounds on this ridge represent house middens or platforms, and excavations in Mound III would confirm such an identification, there is no evidence of any planning in their arrangement. Only Mound II and Mound III, the latter of which is the highest at La Victoria, show any regularity of form, being almost circular.

Since the site is situated in pasture land, it is covered with coarse grass, with fan palms and other trees scattered throughout. Ticks are everywhere, especially the minute kind known locally as *mostazilla* or "little mustard," making survey work a misery. Snakes are another problem at La Victoria, two highly poisonous species having been killed at the site during excavations. Sherds are remarkably rare on the surface, and unless one found a good road cut such as that in Mound I, it is doubtful whether this would be recognized as a site at first glance.

A preliminary trip was made to the Ayutla-Ocós area in the second week of January 1958 with the purpose of investigating La Victoria and the pottery which E. M. Shook had suggested (in conversation) might be contemporary with Las Charcas. The old road cut through Mound I, from which Shook had collected a small sample of sherds during his 1947 reconnaissance, was still clear, and showed many sherds eroding out along with what seemed to be extensive lenses of shell. Across the road, a small remnant of the other end of the mound could be seen. Shell fragments were scattered up and down the road in the dust for some distance.

EXCAVATIONS IN PIT 1

(*Figs. 4; 46, upper left*)

With four workmen provided by Don Oscar Méndez, the owner of the land, a 2 by 4 meter test pit (Pit 1) was immediately begun on the almost flat summit of Mound I, as close to the road as possible to guarantee that the same kind of ceramics would be found. In order to get the most work done in the shortest time, Pit 1 was excavated in 50-centimeter levels. Six to 8 centimeters below the surface, lying underneath a thin layer of very dark brown topsoil, was a layer of white volcanic ash about 3 centimeters thick. Subsequent excavations at La Victoria showed this ash mantle to extend throughout the site near the surface; it represents a deposition following the explosion of Santa María volcano in 1902. The "natural" stratigraphy in Pit 1 below the ash layer was not very apparent in spite of scrupulous ex-

Fig. 7. Profile and the sea of 1 in Tijuana

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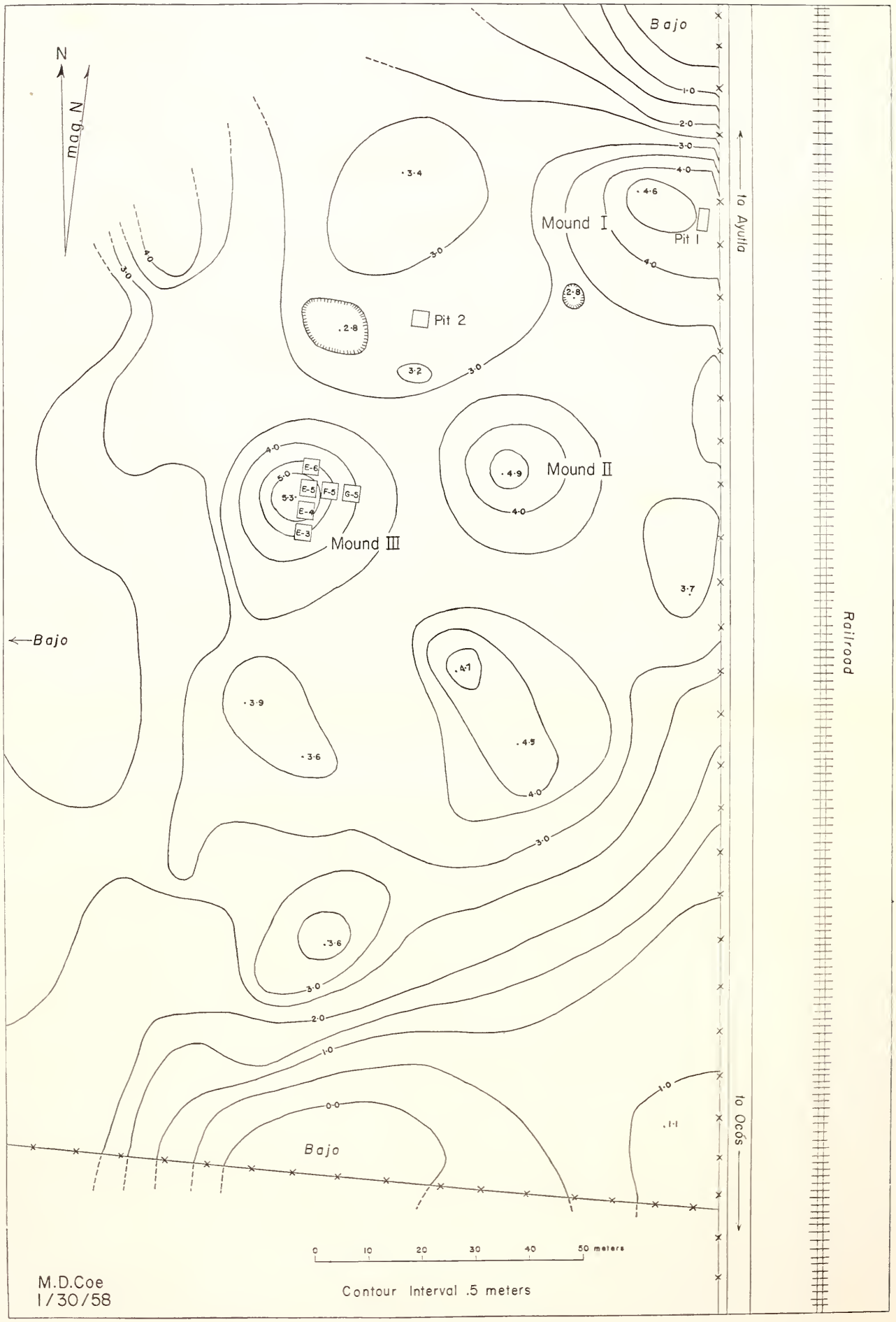

Fig. 3. Map of the site of La Victoria.

Railroad
to Ayutla
Mound I
Mound II
Mound III
Pit 1
Pit 2
Pit 3
Pit 4
Pit 5
Pit 6
Pit 7
Pit 8
Pit 9
Pit 10
Pit 11
Pit 12
Pit 13
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Pit 19
Pit 20
Pit

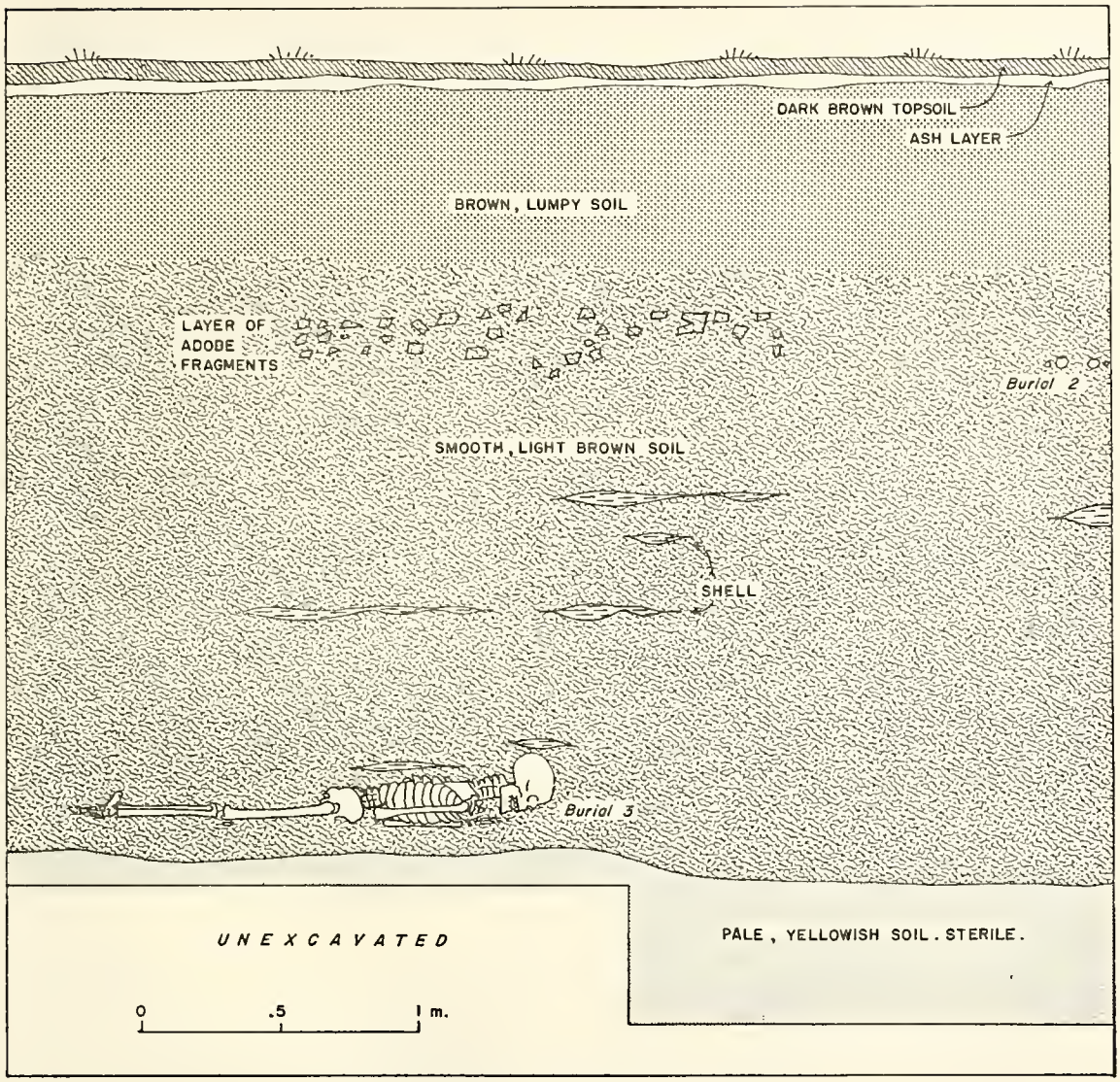


Fig. 4. North–South profile of Pit 1, west face.

amination of wall sections. Brown, lumpy earth with many roots and root holes shaded gradually into smooth, light brown soil at about 80 centimeters below the surface; at around two meters depth it became somewhat finer, lighter in color, and noticeably damper.

At 70-centimeter depth, an adult skeleton (Burial 1) was encountered; this was an extended burial, with the head toward the east, but only the leg bones lay within the excavation area, and time did not permit the clearing of the rest of the skeleton. A layer of light grayish-buff adobe lumps, evidently the remains of a demolished wattle-and-daub house, was found from 95 centimeters to 1.15 meters below the surface. At about the same level was Burial 2, an adult skeleton, extended with the legs crossed at the ankles, and in extremely poor condition; the head was toward the northwest, and as with Burial 1 only a small portion was actually excavated. Shell lenses began to appear at 1.55 meters. Two were in this level, one in the northeast corner of the pit and the other in the southwest corner. These lenses, composed almost entirely of *Amphichæna kindermanni* Philippi, were approximately oval

in shape, 80 centimeters to 1.40 meters long, and 5 to 7 centimeters thick at their densest points. Another small shell lens was found at 1.72 meters and a more extensive one on the west side of Pit 1 at 1.98 meters, both of the same species as previously.

When the excavations had reached a depth of two meters, work was halted and I returned to the city. Sherds and other artifacts had been abundant throughout, and it was clear that even at this depth the bottom of the cultural deposits had not been reached. On washing these sherds in Guatemala City, the affinity of the majority with Las Charcas and Mamom was apparent; a very few from near the top were San Juan Plumbate and therefore Late Classic. It seemed a likelihood that even earlier and possibly pre-Las Charcas material would be found at greater depths, especially since the shell lenses suggested a semi-Archaic economic status. Accordingly, in the last week of January I returned to La Victoria, accompanied by my wife, for an intensive excavation of the site.

The excavation of Pit 1 was immediately resumed with three workmen, while four others began clearing the site with machetes. Below the 2-meter level there were less sherds, and the soil was much damper. At about 2.50 meters spiky, calcareous concretions began to be found throughout the soil and continued down in increasing numbers and size toward the bottom of the pit, at 3.40 meters. These concretions were apparently the result of the precipitation of carbonates leached out of the shell layers above by percolating rainwater. Burial 3, at 2.55 meters, was excavated in its entirety (fig. 46, *lower right*). The skeleton was well-preserved, unlike all other bone material found at the site, as it had been permeated with calcareous salts. It was extended, but prone, with the arms folded under the body and the head turned to one side. The only possible explanation for the position of the skeleton, the absence of offerings, and the holes which had been knocked in the skull is that this young female adult had been killed by repeated blows inflicted with a sharp instrument, and then pitched into a hastily dug grave. Small shell lenses were found just over the head and thorax of the skeleton. The only entire vessel to be found at La Victoria, a small Conchas White-to-buff bowl (fig. 27, *j*), was located 50 centimeters above the right elbow and may be associated with the burial. There was no evidence from the soil profiles of the pit that must have been dug for the body.

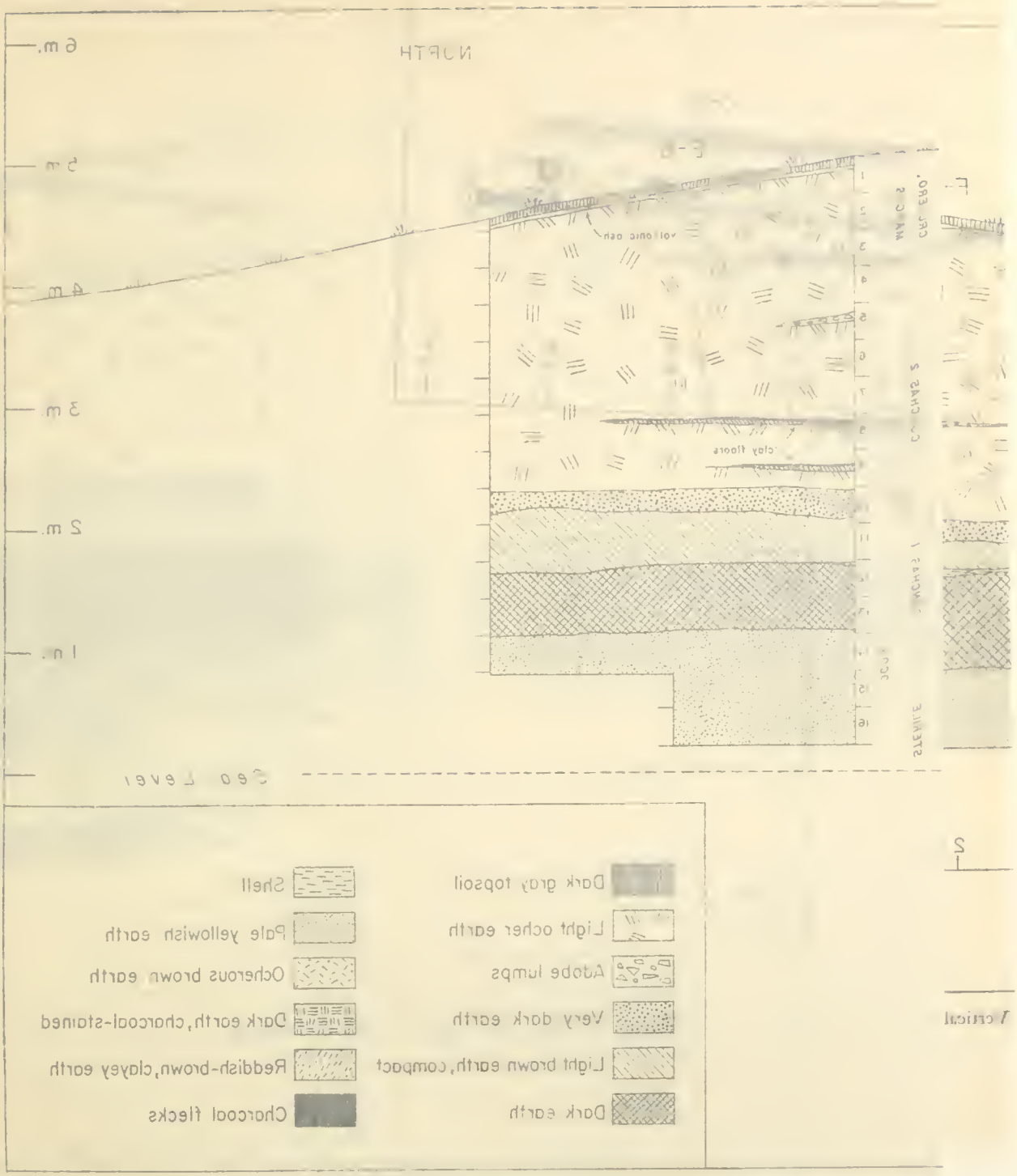
At approximately 2.90 meters, all sherds and other cultural debris ceased. From that level down to at least 3.40 meters, where excavation stopped, the soil was entirely sterile, light brown in color, very damp, and with large quantities of spiky fragments, some of them as long as stalactites.

EXCAVATIONS IN MOUND III

(*Figs. 5; 6; 44; 45*)

With the excavation of Pit 1 largely completed and a contoured site map prepared with plane table, explorer's alidade, and stadia rod, attention was turned elsewhere. The largest feature at La Victoria is Mound III, a gently rounded, low mound, somewhat circular, with a diameter of about 35 meters; its summit is only 2.3 meters above the surrounding ground and 5.3 meters above sea level. From its general conformation, it had the appearance of a mound which had been built from gradually accumulating midden deposits and house foundations. It turned out to be exactly as expected. At that time, although it was known from Pit 1 that the cultural deposit at La Victoria was at least 3.40 meters deep, it hardly seemed likely that it could be very much deeper in Mound III. Plans, never realized, were made to extend the Mound III excavations to Mound II as well.

Accordingly, a grid of stakes at 4-meter intervals was laid over the eastern half of Mound III and extended down the slope to the level ground between it and Mound II to the east. Within these stakes, 3-meter squares were marked out with string and given letter-number designations, the letters going from west to east and the numbers from south to north. The program was, in actuality, overly grandiose. At the end of the season, only six


NORTH
6 m.
5 m
4 m
3 m
2 m.
1 m.
Geo Level
volcanic ash
clay floors
Dark gray topsoil
Light ocher earth
Adobe lumps
Very dark earth
Light brown earth, compact
Dark earth
Shell
Pale yellowish earth
Ocherous brown earth
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Reddish-brown, clayey earth
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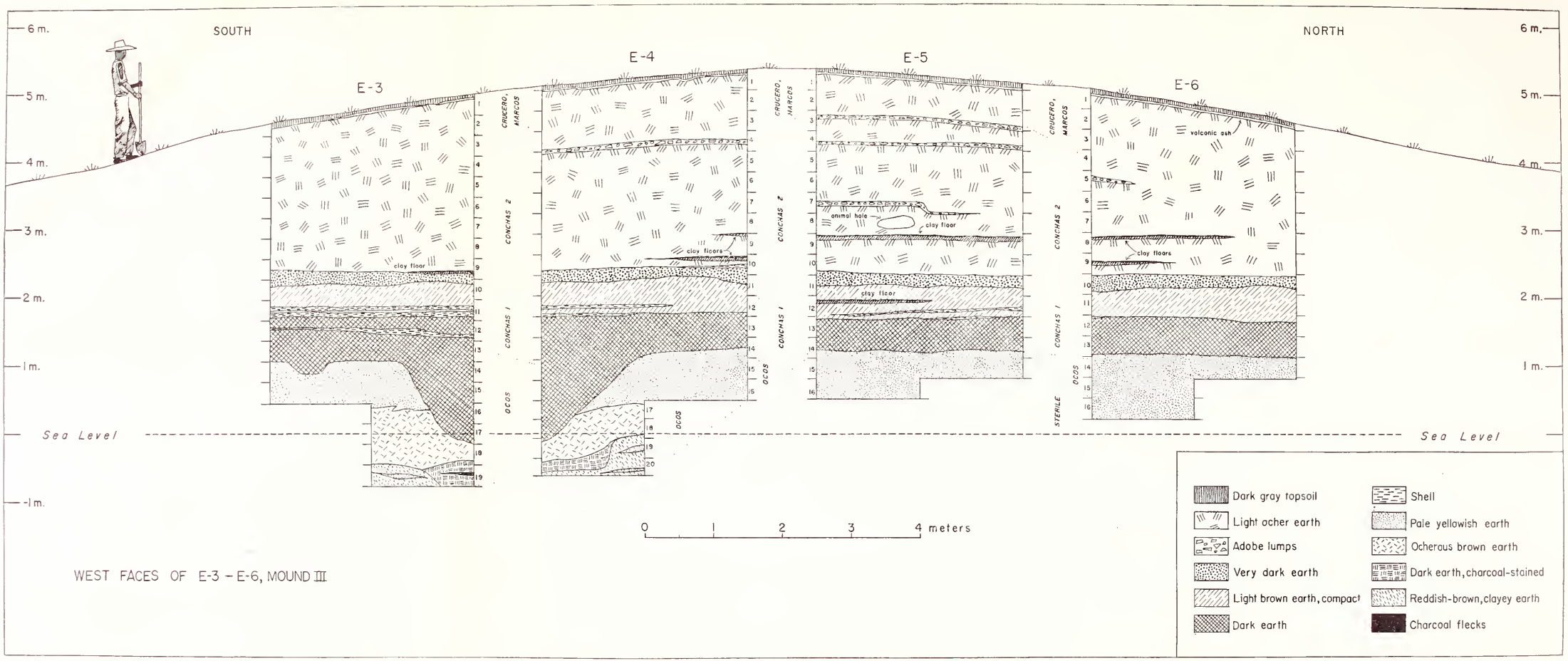


Fig. 5. West faces of E-3 through E-6, Mound III. The vertical numbers refer to excavation units.

FIG. 5 West faces of E-3 through E-6, Mound III. The vertical numbers refer to excavation units.

canic ash which covers the entire countryside. Below this is a soil of light ocher color, full of root holes toward the top and literally stuffed wtih pottery fragments throughout. Layers of adobe lumps like those found in Pit meters below datum in E–5. One more clay floor appeared within it, showing up in the east, south, and west sections of E–5. Extensive shell layers, largely made up of *Amphichæna kindermanni* Philippi but including many

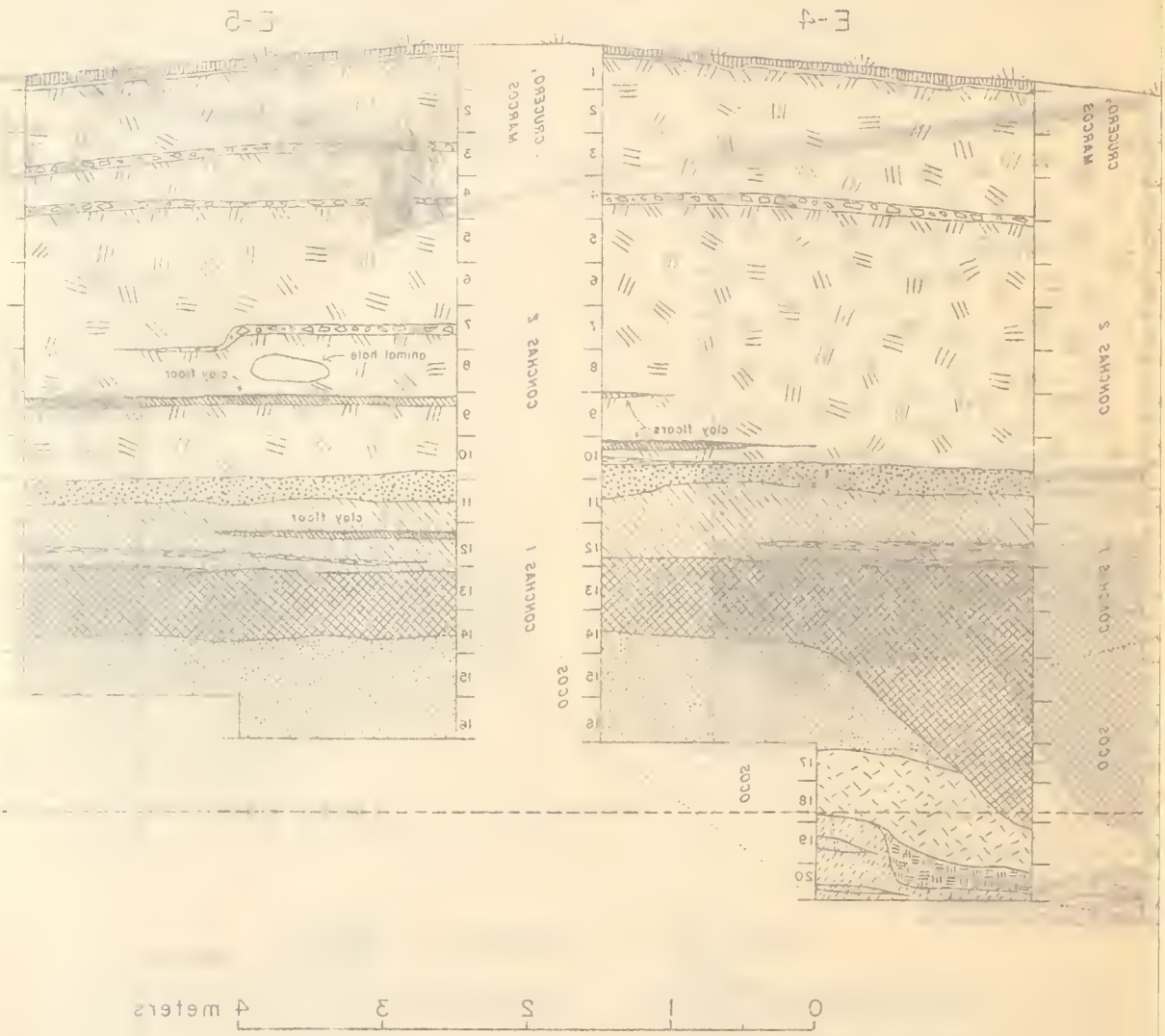


Fig. 5 Wall faces of E-3 through E-6, Mound III. The vertical numbers refer to excavation units.

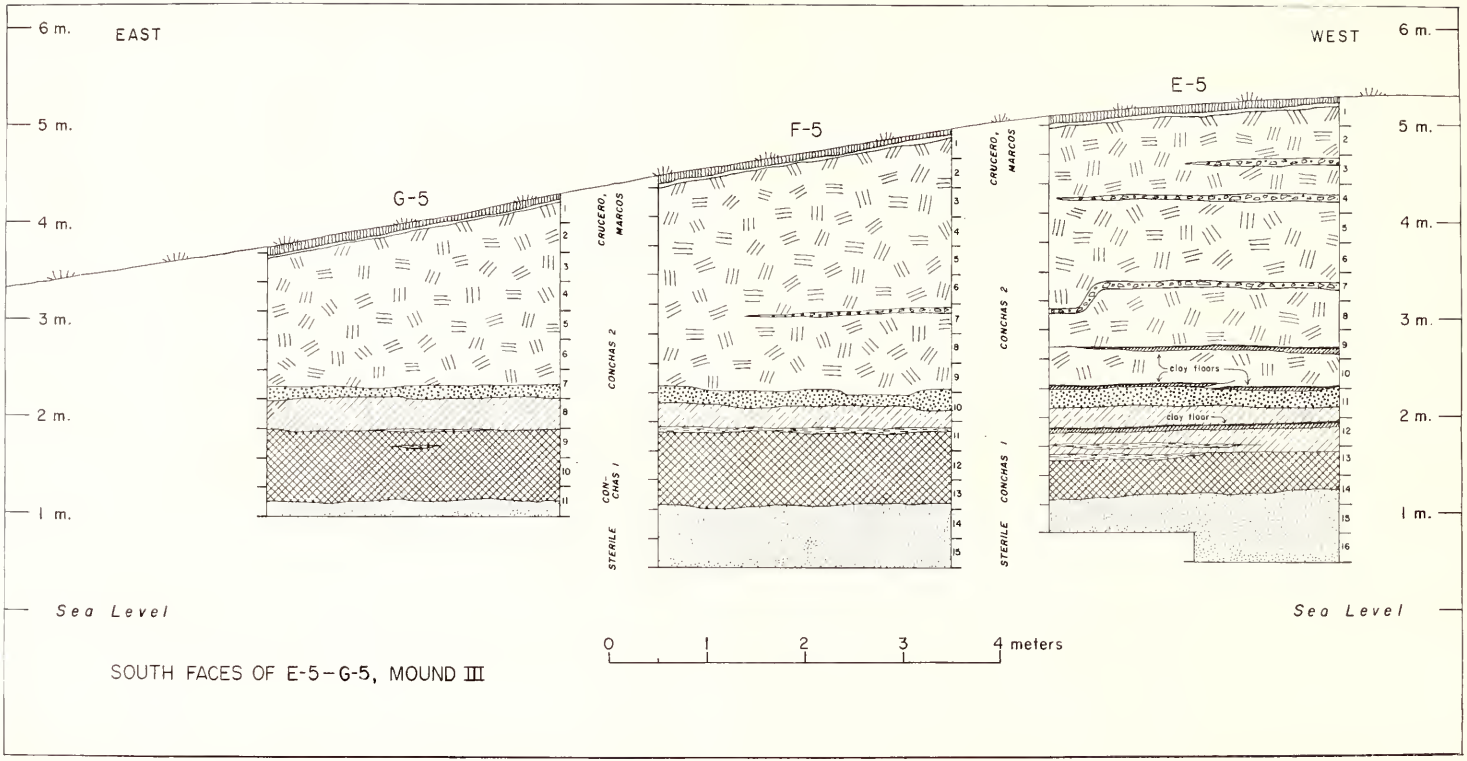


FIG. 6. South faces of E–5 through G–5, Mound III. Vertical numbers refer to excavation units.

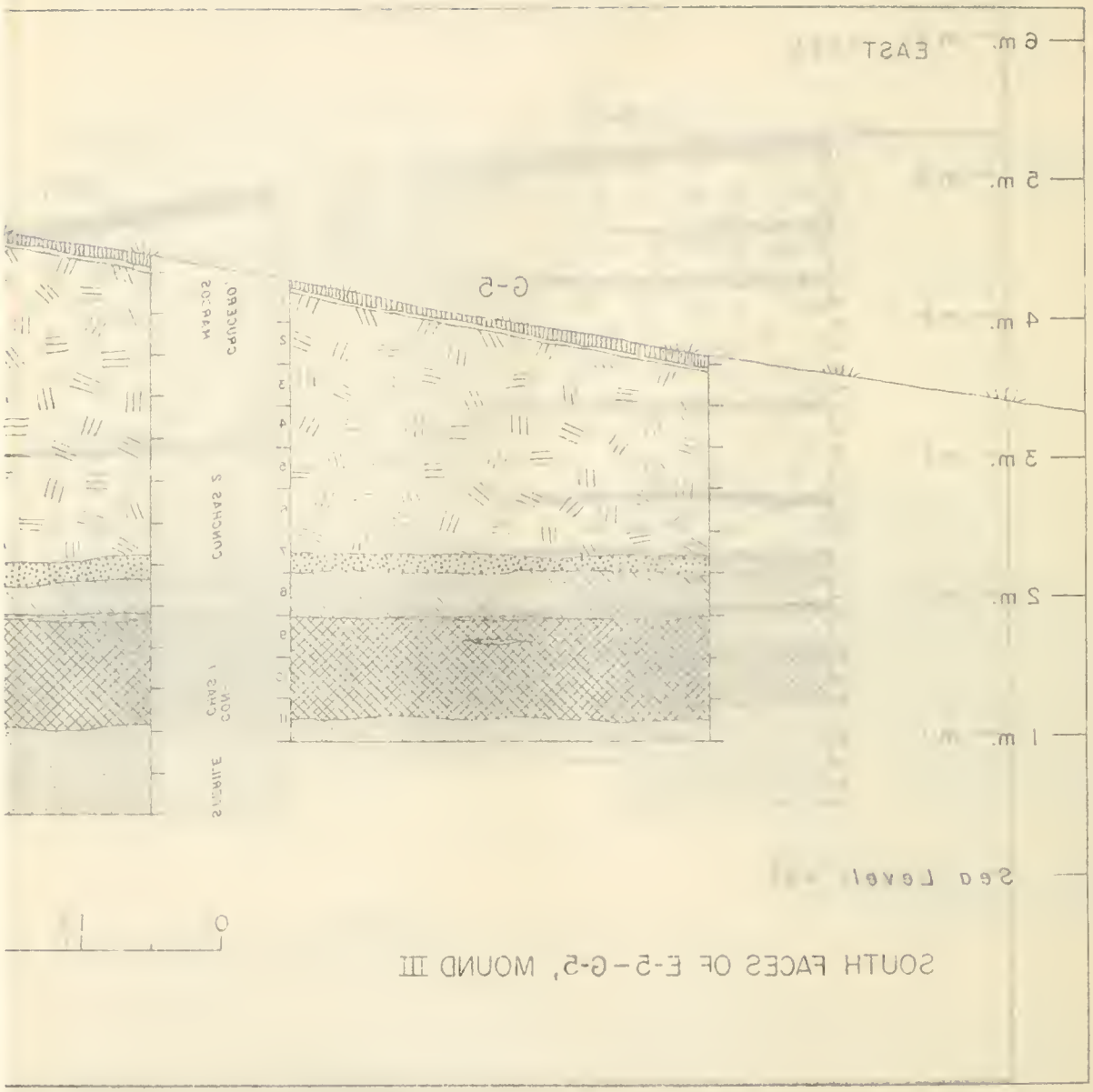


Fig. 6. South faces of E-5 through G-5, Mound III.

Fig. 5. West faces of E-3 through E-6, Mound III. The vertical numbers refer to excavation units.

of these 3-meter squares had actually been dug, E–3 through E–6, just east of the north–south meridian line near the summit of the mound, and F–5 and G–5 heading down the slope to the east; these did, however, form a sort of T-shaped sample of the mound contents. Between each square a one-meter balk was left, sufficient to carry the weight of the workmen and to serve as a means of communication. With an acute shortage of wheelbarrows (the only one available was a decrepit vehicle belonging to a local ice cream vendor), disposal of back-dirt became a problem, and we were eventually reduced to allowing the men to shovel it up onto the west half of the mound. The priceless wheelbarrow was used to remove the back-dirt from F–5 and G–5. This system would have been disastrous if there had been time to excavate the west half of Mound III.

Previous experience in digging Pit 1 in Mound I had demonstrated that the method of stripping off layers of "natural" stratigraphy would be out of the question at this site. Even after the most careful cleaning of the profile faces in Pit 1 and viewing them in various stages of dampness, even upside down, no contrasting features were seen with the exception of the thin ash layer at top, the ghostlike adobe fragments, and the scattered shell lenses. At the same time, we knew that there were important changes in the cultural stratigraphy. Therefore, it was decided to dig the Mound III pits in 30-centimeter levels, adjusting the contents of each artificial layer to any "natural" stratigraphy which would be recorded on profile drawings. Our labor force varied from 12 to 14 men, two men being assigned to each pit. Picks and shovels were used, and all material was hand-sorted by the men. It is doubtful that they overlooked much of importance, for they could pick out of the dirt the most minute fragments of pottery, bone, and shell.

Essentially, the same stratigraphic profile was revealed in all six pits in Mound III. Beneath the approximately 10 centimeters of dark gray topsoil is the same mantle of white volcanic ash which covers the entire countryside. Below this is a soil of light ocher color, full of root holes toward the top and literally stuffed wtih pottery fragments throughout. Layers of adobe lumps like those found in Pit 1 were present in all pits except E–3 and G–5. These layers are 5 to 10 centimeters thick and are slightly curved in a convex fashion like curvature of the mound surface itself. There would appear to be three layers, one between 60 and 75 centimeters, another between 90 centimeters and 1.10 meters, and the last at 2 meters below the curved surface of the mound. Impressions of sticks and poles in these fragments again suggest that they were once a part of the walls of wattle-and-daub houses. The two lowest adobe fragment layers are stepped down on the north and northeast sides by about 40 and 20 centimeters, respectively, implying that the edges of what were perhaps packed-dirt platforms were once there. Pieces of adobe with the same sort of impressions were found in almost all levels below this, but never in well-defined layers. In Level 8 of E–5, a very large animal burrow, probably of an armadillo, was found. Other smaller tunnels in the levels above were caused by pocket gophers, according to the workmen, and may in some cases have confused the pottery sequence.

A fairly hard clay floor was encountered at 2.45 meters below datum in E–4 (always the highest corner at the surface in a pit). This proved to run approximately level throughout E–4, E–5, and E–6, but was not found in E–3, F–5, and G–5; that is, the floor was confined to the central and northern part of the mound. There is evidence that this platform was oriented approximately to true north and that most of it lay to the west of the excavation area. About 45 centimeters below the platform another clay floor was found, over which the later platform had been built; this extended from E–4 to E–6 and traces of it were found in F–5. It was placed almost directly over a layer of very dark earth; the latter was 15 to 20 centimeters thick and was found to extend throughout all pits in Mound III at approximately the same level. Another level, homogeneous layer of compact, light brown earth again was encountered in all pits, below the very dark layer and extending from about 3.2 to 3.5 meters below datum in E–5. One more clay floor appeared within it, showing up in the east, south, and west sections of E–5. Extensive shell layers, largely made up of *Amphichæna kindermanni* Philippi but including many

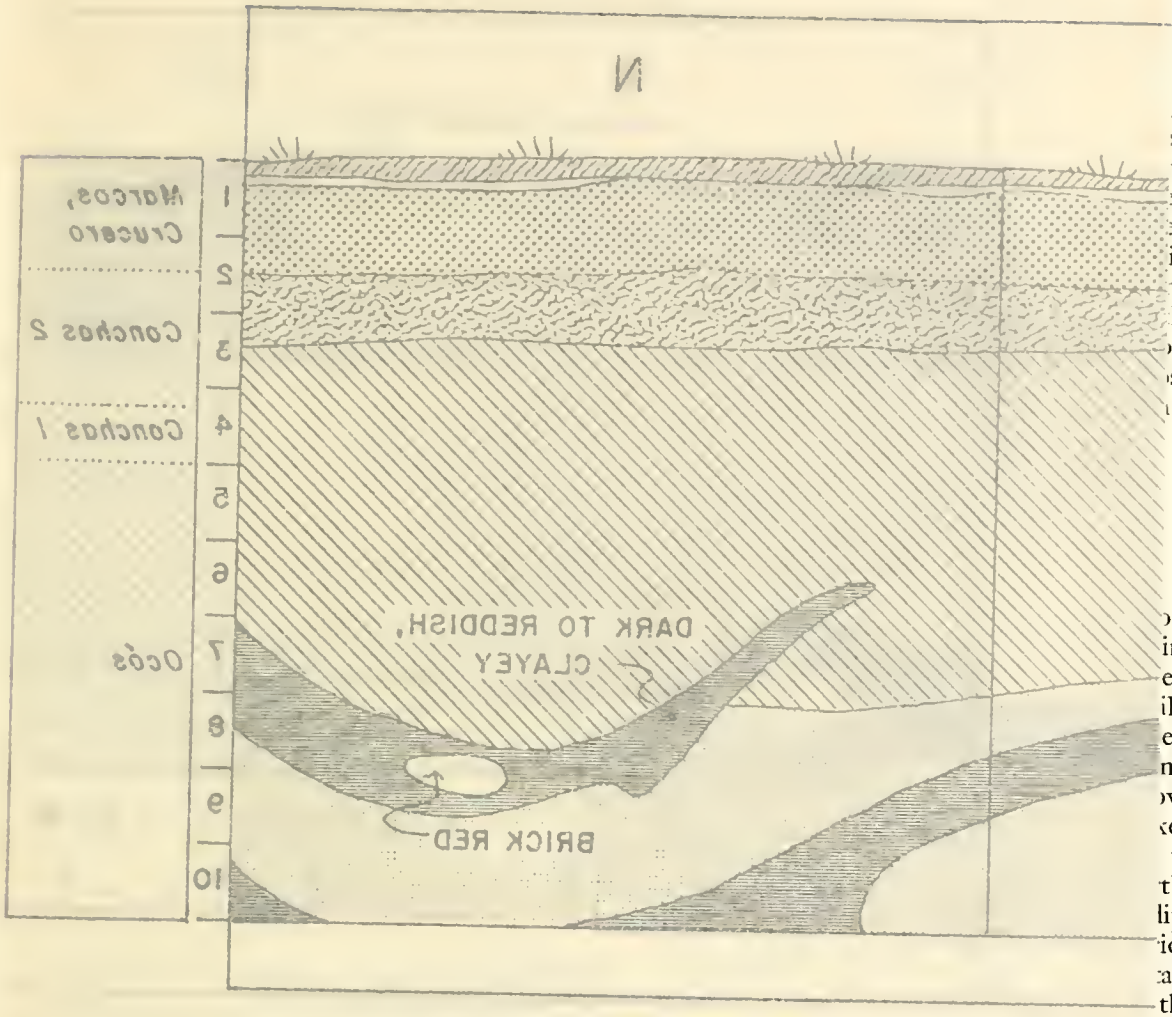
Agaronia testacea, *Polymesoda radiata*, and other species, began appearing at 3.5 meters below datum in E–5 and in similar levels in all the other pits. Actually, these shell layers were compound, the shells of the uppermost layer being pulverized probably as preparation for living surfaces or floors of some kind, while the lower ones contain largely unbroken and presumably midden shells. These are so dense with valves, especially of the first-named species, that no soil is present in the interstices. One of the shell layers rests directly on the upper surface of a zone of dark earth; in E–3 and E–4, the lowest and, in these instances, the third layer is found within that zone. Regarding the latter layer, it appears as double in E–4, but a V-shaped meeting of the two on the east wall of that pit shows that both were deposited at the same time.

The dark earth zone continued down in each pit for at least 50 centimeters, and was still sherd-bearing. However, at 4.10 meters below datum in E–5 and at similar levels in the other pits, a pale yellowish soil, quite damp, began to be encountered; this was nearly or entirely sterile, and contained the same spiky fragments that we had come across in Pit 1. It was carried down to 4.80 meters in E–6 and 4.80 meters in E–5 below their respective datum points, when excavation was terminated in these; likewise at 4.50 meters in F–5 and 3.30 meters in G–5. In the northwest corner of E–3 and in the corresponding southwest corner of E–4, the dark zone dipped down into what looked like a deep pit; sherds and other artifacts continued to come out of this at very low levels, although the surrounding pale yellowish soil was sterile. The profile in this pit was very unclear, it usually only being apparent that the non-sterile soil was darker than the sterile, with no clear-cut demarcations between the two. At any rate, at a depth of 5.40 centimeters in E–3 and the corresponding depth in E–4, appeared what looked like a lens of charcoal-stained soil, interleaved with other soils of different color, some being reddish and clayey. Charcoal flecks were encountered, but so few that an adequate radiocarbon sample was out of the question. At this point, the workmen were well below sea level, in very wet mud; if carried deeper, the walls of the two pits, already dangerously deep, might collapse. Therefore, I made a quick excavation of my own below the hearth in E–3, taking it down to a depth of 6 meters below datum for that pit. A few more sherds were encountered, but it seemed to be sterile below. This terminated excavations in Mound III, but I am left with a nagging doubt whether we ever did get all the way to the bottom of the site, and whether earlier materials await an enterprising archæologist. If further work is done here, the width of the pits or trenches must be made considerably larger than three meters.

Certain special features were found in each pit. In E–3, Level 3, a sort of cache of broken stone bowls and metates was found near the east face of the pit, probably a small dump placed there by the people who were living on the now disappeared floor represented by the fallen adobe fragments. On the south profile of E–3 appeared a pit which had been cut down from the surface of the shell layer at about 3.50 meters from datum (fig. 45, *bottom, right*). This pit extended all the way down into the zone of sterile yellowish soil, being about one meter deep and 1.40 meters wide; it contained mainly Conchas sherds and, toward the bottom, lenses of charcoal-stained soil and scattered burned shells. It had presumably been used as a cooking pit. A single very fragmentary burial (Burial 4) was found in E–3, in Level 3, 60–65 centimeters from datum for the pit. It consisted of a totally disarticulated skeleton crammed up into the northwest corner.

In E–4, Level 7, an arm bone was found sticking into the east face of the pit; 60 centimeters directly below this a few skull fragments were located. These bones have not been dignified with the name "burial," and it is not unlikely that they, like many other human bone fragments scattered throughout the midden refuse, can best be interpreted as evidence for cannibalism. In the northeast corner of the same pit, right on the surface of the sterile yellowish zone, was a small area of clayey black soil with a few charcoal flecks, probably a hearth.

In Level 9 of E–5, at 2.70 meters below the datum for the pit, two possible postholes were found in the clay floor, but they were so indefinite that little reliance should be placed on them; they were circular, approximately 20



below that was also, as usual, very difficult to distinguish. Below the ash layer to about 40 or 45 centimeters beneath the surface the soil was tan and rather compact. This zone blended into a layer extending to about 75 centimeters below datum (the surface) which was grayer and looser, with many small root holes. From

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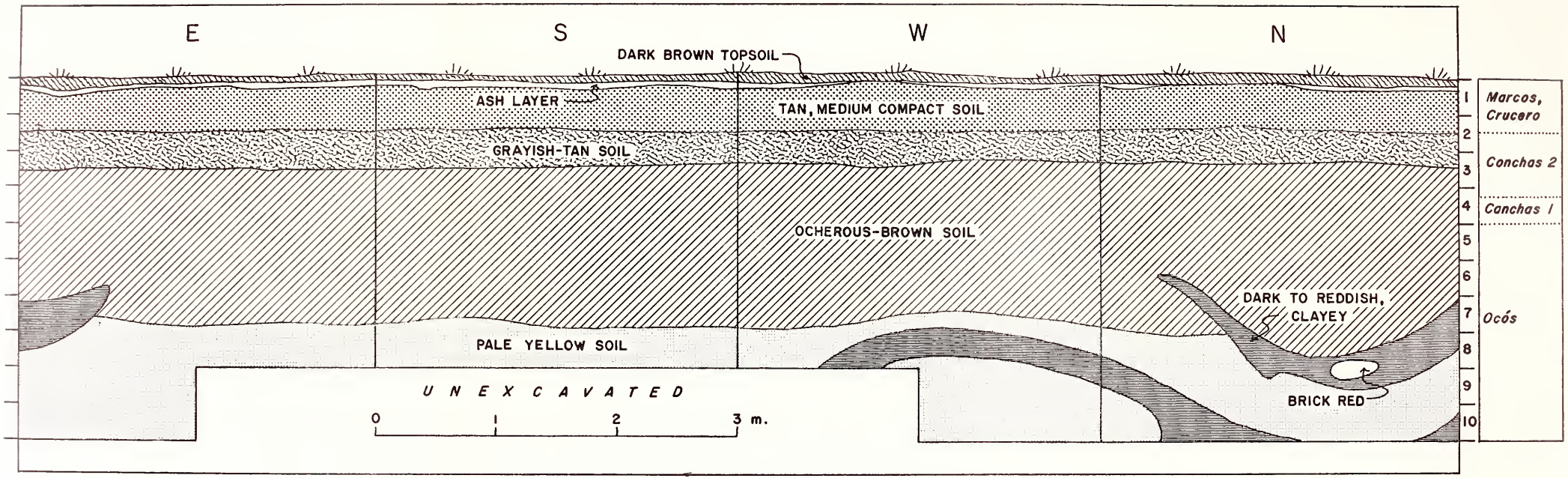
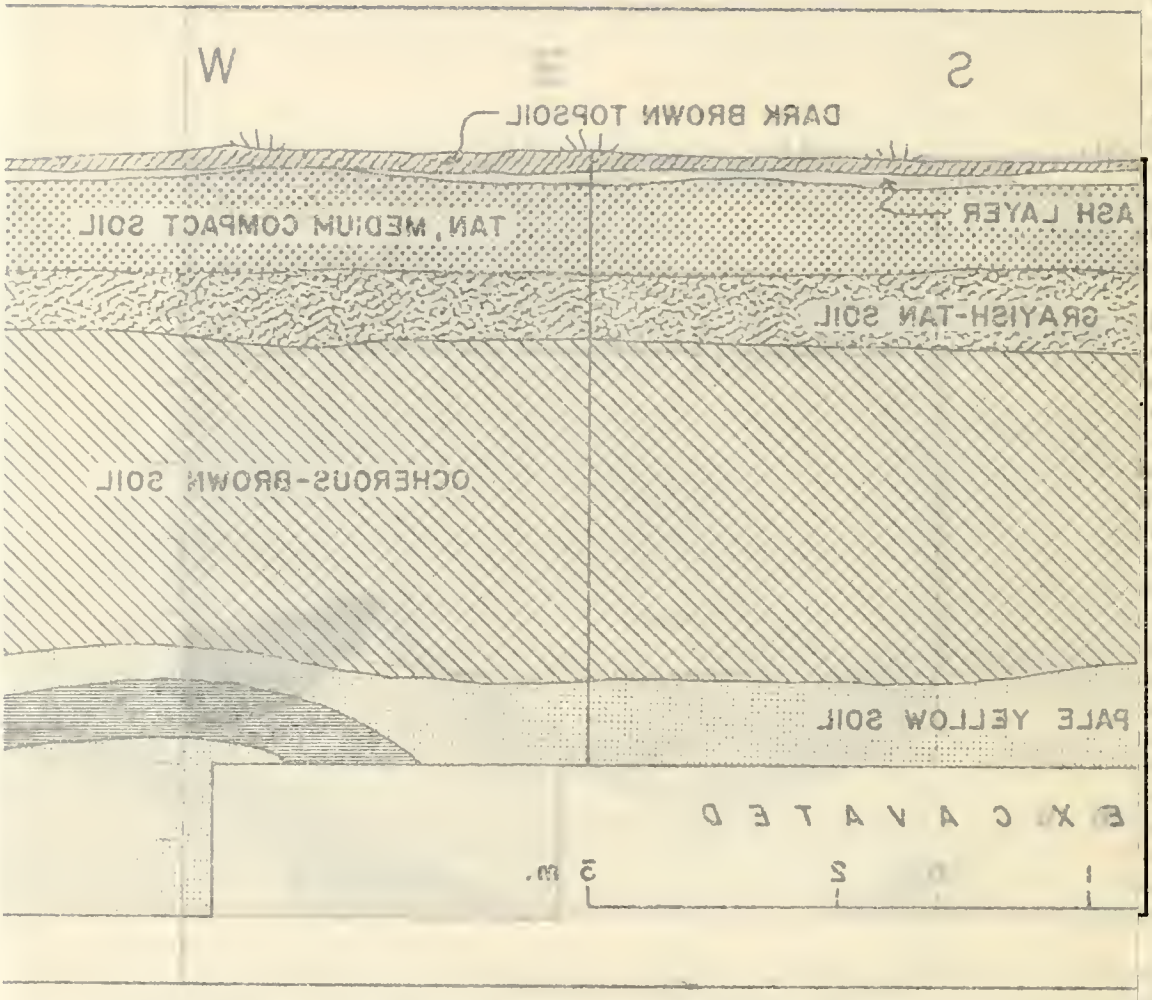


Fig. 7. Profiles in Pit 2. Vertical numbers refer to excavation units.



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centimeters in diameter, and spaced 50 centimeters apart. The only difference between them and the surrounding areas was the softness of the supposed fill within them. They could also represent gopher holes. Lying right on this floor in E–5 was a small shell lens in the middle of the pit; it was approximately circular and about 1.50 meters in diameter.

Burial 5 was encountered between 2.15 and 2.30 meters below datum, in Level 7 of E–6. This again was extremely fragmentary, and consisted largely of little bits of the cranium, a metacarpal, and a femoral condyle. Since the teeth and the jaw were lacking, this may represent the remains of another cannibal repast. In Level 10 of E–6, between 3.05 and 3.30 meters below datum, was a large cache of very big sherds, most of them heavily burned, and mainly of Conchas Red Unburnished vessels; it probably was a lining for a hearth.

A number of scattered human bones were again found in Level 6 of F–5, just above the layer of adobe lumps.

Several hearths were encountered in G–5, all of them above, below, or near the shell layers of Levels 8 and 9. Some of them contained burned shell as well as charcoal-stained soil and minute flecks of charcoal. Between 2.80 and 2.90 meters below datum for G–5, in Level 9, clearly visible on the profile of the north wall, was a slightly concave hearth, about 1.2 meters across, lined with stones, most of them broken metates or manos. G–5 in those times (Conchas 1) would seem to have been a kitchen.

EXCAVATIONS IN PIT 2

(*Figs. 7; 46, lower left and upper right*)

During the later stages of work in Mound III, it seemed worthwhile to make a test pit out on the flat away from the mounds to check the stratigraphy within them. Although it was already clear that Mound III was the result of a long, slow accumulation of debris with successive stages of floor building and not the product of a single construction operation, an additional test of the cultural sequence would further prove that the succession found in Pit 1 and Mound III was not reversed from the true state of affairs.

A 3 by 3 meter pit, Pit 2, was therefore commenced at a point northeast of Mound III and about equidistant from Mound II and Mound I as well. The usual ash layer from Santa María was found a few centimeters below the surface. Further zoning of the profiles below that was also, as usual, very difficult to distinguish. Below the ash layer to about 40 or 45 centimeters beneath the surface the soil was tan and rather compact. This zone blended into a layer extending to about 75 centimeters below datum (the surface) which was grayer and looser, with many small root holes. From that zone on down to 1.50 centimeters below datum the soil became more ocherous and increasingly compact. Below 1.80 centimeters from the surface, curious areas, shaped like curvilinear lenses but not clearly defined, interleaved with each other and the ocherous zone; the latter finally blends into a pale yellow, damp soil which was sterile. The lenses, mixed up like a marble cake, were dark, or dark to reddish and clayey. At one point in the northeast corner of the pit, where a dark lens dips down to form a pocket, the interior is brick red. All but the pale yellow soil bears a certain number of sherds. Since at three meters the pit was to all intents and purposes sterile, the excavation was terminated at that level.

The curious marble-cake appearance of the profiles of the lower levels of the pit, which resembles the deep profiles of E–3 and E–4, appears to be the result of the filling of pockets or depressions in an old land surface by clayey muds and silts, with perhaps the formation of long-lasting wallows. The same phenomenon in all three instances (E–3, E–4, and Pit 2) can be assigned temporarily to the Ocós phase.

Chapter VI

STRATIGRAPHY AND THE CULTURAL SEQUENCE AT LA VICTORIA

OUT OF the huge quantity of cultural debris resulting from the 1958 excavations at La Victoria, four phases have been abstracted. Three of these are Formative: Ocós, Conchas (divided into subphases 1 and 2), and Crucero. The fourth phase, Marcos, is Late Classic and clearly follows a long hiatus in the occupation of the site.

TAXONOMIC PROCEDURES

The archæologist should make explicit the basis of his chronological scheme and so justify the actuality of the phases he has set up. In all fairness, it must be admitted that even while the material was coming out of the ground, I had already decided on three phases: Ocós, Conchas, and Marcos. My original hunch that these would hold up during and after analysis of the entire collection was correct. I had also suspected that there was an earlier kind of Conchas of relatively short duration. Later, this was made into a subphase, Conchas 1, followed by a much longer Conchas 2. A late Formative phase, Crucero, was added when it was found that the mixed debris in the top layers of the site could be segregated typologically into a terminal Formative and a Late Classic (San Juan Plumbate) phase. Throughout this report, by the term "phase" I mean the spatially and chronologically contrasting unit defined by Willey and Phillips (1958, p. 22) following an earlier formulation by Kidder; the older and misleading term "focus" (implying to the naïve reader some sort of concentration or intensity) is a synonym.

On my return to Guatemala City, I began analysis of the pottery from La Victoria. The material from each 30-centimeter level was placed in a tray, with the rims, bases, and decorated fragments separated from plain body fragments. These trays were then arranged in order in cabinets according to level and to excavation pit. It was then necessary to begin consideration of what kind of criteria to use in setting up a workable ceramic typology. The binomial system was decided upon for terminology, but whether to adopt surface decoration or general surface treatment as the touchstone for the system was a major problem.

An examination of the La Victoria sherds showed that the system of using decorative techniques, especially plastic, as a sorting criterion would not work, that is, it would not clearly show the kind of chronological changes in which I was interested. A designation, for instance, of a Conchas Incised type would have cross-cut numerous categories of pottery which were clearly distinct; in other cases, a similar use of plastic surface treatment would have divided a single contrasting ceramic group into meaningless categories. This is not to assert that various kinds of surface decoration have no chronological significance at our site because many do, such as rocker-stamping and iridescent striping; but they occur on a variety of ceramic categories that would better be kept separate. A similar taxonomic procedure has, in the region of its most widespread employment, often backed the classifier into a corner of his own making as is frequently shown in the eastern United States by the perplexing case of the pot which comprises in itself two or even more "types." For an example of such an archæological quandary, one can refer to a recent publication (Griffin, 1952, pl. 38 A) in which is illustrated a Havana Zoned jar from Illinois which has a Neteler Stamped rim, an upper body of Havana Zoned Incised and Havana Zoned Stamped, dentate variety, and a lower body of Havana Cordmarked. That such a monstrosity could occur was a warning to me not to use such a system when another would work better. This is not to imply that in the eastern United States, where slipped pottery is rare and plastic surface treat-

Fig. 8 Graph of pottery type percentages by level 1-4

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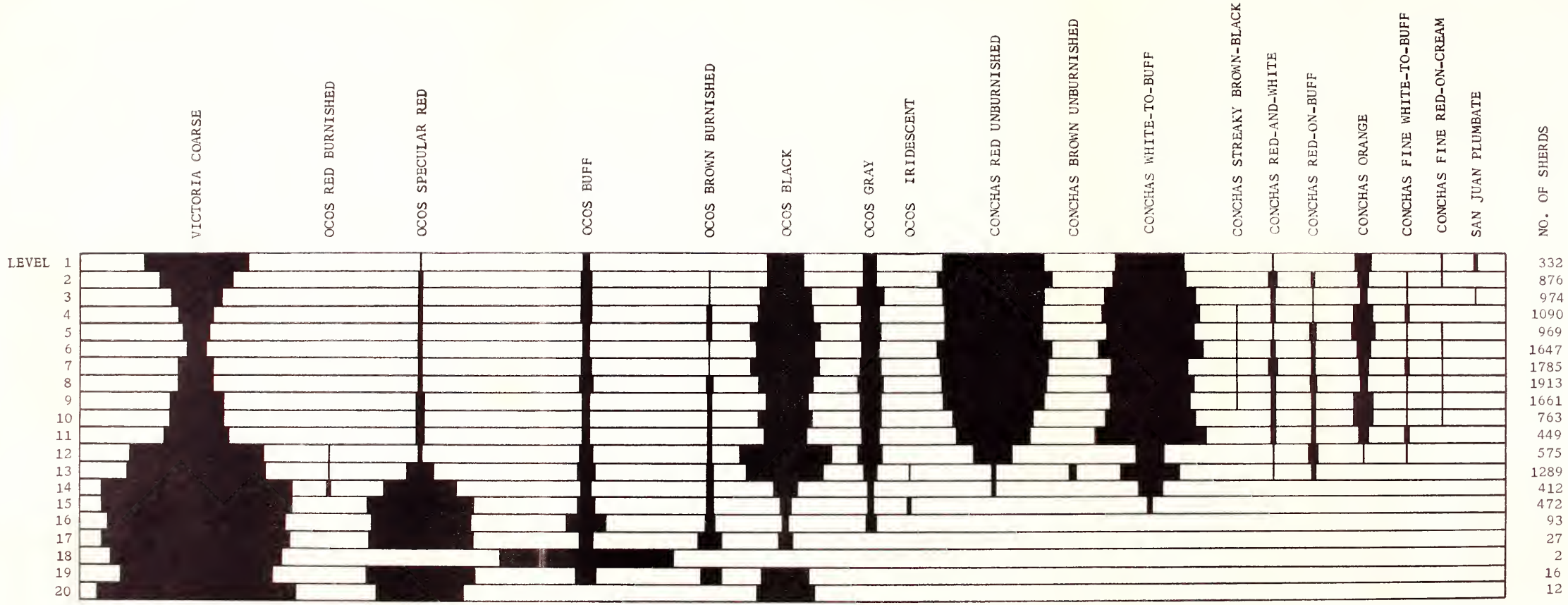

TOTAL SHERDS 15,357

Fig. 8. Graph of pottery type percentages by level, E-4.

LEVEL
1
2
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4
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11
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17
18
19
20
VICTORIA COARSE
CENSIRIED DEN SOOO
CCCS SPECIVAR KEN

ment often the only possible sorting criterion, the taxonomic methodology of that area has not been highly successful. It has, but in other areas, other possibilities should be sought out. The pragmatic flexibility in cultural taxonomy advocated by Brew (1946, pp. 64–65) suggests that one should seek the criteria that best enable one to carry out the purpose of devising and justifying a workable relative chronology.

Accordingly, after a great deal of trying out various kinds of typology for "fit," it was decided to use the kinds and visual qualities of slips or paints, and an absence of same, as the sorting criteria. Such a system would divide up the La Victoria pottery, the bulk of which was either slipped or painted, into categories of not too large size which seemed, from the outset, to be chronologically significant. These categories correspond to the definition for types offered by Wheat, Gifford, and Wasley (1958); they are distinct in terms of certain visual or tactile characteristics and they have explicit temporal and areal (shown by a modest reconnaissance) associations. The binomial system was employed, the first term of which is the phase name in which the type is believed to have begun, and the second of which is the color of the slip or paint, if present, with slips of similar color but contrasting techniques being distinguished by the terms "burnished" or "unburnished." Such type names would be Ocós Gray, Ocós Brown Burnished, and Ocós Brown Unburnished. Two types, Conchas Fine White-to-buff and Conchas Fine Red-on-cream were further distinguished by quality of paste. It proved to be impossible to sort unslipped or unpainted sherds into any workable categories. These have been considered in this report as a single ill-defined class, Victoria Coarse, the name Victoria being used because of its inclusiveness. While its status as a true type is doubtful, it will be here treated as such. In the case of sherds which beyond any doubt were introduced from another, known area, the name of the type site and the slip or paint quality have been used as designators; so far, only Río Blanco Orange and San Juan Plumbate have such extra-site names. The exact place of manufacture of the latter type may, however, actually be closer to La Victoria than to the type site, Santa Lucía Cotzumalhuapa, where it was found in the San Juan phase. The name has, however, become well-established in the literature since original publication (Thompson, 1948), and will be used here.

Form also has been considered in the differentiation of phases. It has not been used as the principal chronological tool since, in the virtual absence of complete vessels at La Victoria and the presence of close to 100,000 sherds, all too often very small fragments, it would not be possible to arrive at a reliable statistical count by vessel form. Moreover, form continuity is a feature of La Victoria, particularly in the Ocós and Conchas phases. There are, nonetheless, some important shape differences between phases and even subphases which will be described in the appropriate section. Another criterion widely used but generally inapplicable at La Victoria is paste and temper. With little technical knowledge and with no equipment other than a hand glass at my disposal, it was hopeless to attempt a sorting of the pottery by temper, especially since almost without exception all sherds were, on macroinspection, found to be tempered with what Shepard has called "crystal ash," a kind of volcanic sand. Other than the two types mentioned in the last paragraph, the only distinct temper and paste category was the well-known San Juan Plumbate. Finally, in the practical definition of the cultural phases at the site, certain peculiar decorative techniques (most of them Ocós) have been utilized, as well as the large number of ceramic and nonceramic artifacts found in almost every level. These have been tabulated separately.

THE CULTURAL SUCCESSION

The four phases at La Victoria were ultimately defined on the basis of the stratigraphic occurrence of the following pottery types:

Ocós Red Burnished
Ocós Specular Red
Ocós Buff
Ocós Brown Burnished
Ocós Black
Ocós Gray
Ocós Iridescent
Conchas Red Unburnished

Conchas Brown Unburnished
Conchas White-to-buff
Conchas Streaky Brown-black
Conchas Red-and-white
Conchas Red-on-buff
Conchas Orange
Conchas Fine White-to-buff
Conchas Fine Red-on-cream
Río Blanco Orange
Crucero Red-on-orange
San Juan Plumbate

A few anomalous sherds from the top of the site were not divided into types; these and the above-listed types are described separately in the chapter on pottery, under the appropriate phases.

All the sherds were sorted by type and counted in each level of three excavation pits: E–4 and E–5, lying near the center of Mound III, and Pit 2, out in the flat to the northeast of Mound III. The latter was, as explained previously, dug as a check on the mound stratigraphy. In E–4, 15,357 sherds were counted; in E–5, 9,253; and in Pit 2, 2,890 sherds (*see* tables 3–5). The time consumed by this (plus the eyestrain developed) precluded total counts on other pits; these were, however, included in form, decoration, and artifact counts.

The tabulated results of the sherd count plotted by percentages are shown in the bar graphs (figs. 8, 9, 10). Each pit tells the same stratigraphic story. Victoria Coarse starts out as very popular in the lower levels of the site, then gradually loses popularity later on, to gain it again in the upper levels. Ocós Specular Red is largely confined to the lower levels, later to decline to practically nothing; its later occurrences may be interpreted as redeposition. Ocós Buff has a rather similar history to Ocós Specular Red, except that the type does not die out quite so completely. Ocós Black has an initial popularity, declines somewhat, then flares out again, gradually to taper off toward the top levels. Ocós Gray begins about the same time that Ocós Specular Red is beginning to contract; it continues throughout the site in attenuated fashion. Two types confined to the later stages of the lower levels are Ocós Red Burnished and Ocós Iridescent. As a rule, Ocós Brown Burnished and Ocós Buff are more prevalent in the lower levels of each pit, but have some occurrence throughout the history of the site which may be nothing more than a redepositional effect. The presence of the above-named types by themselves marks the Ocós phase, which is stratigraphically placed in the lower levels of La Victoria and which represents the earliest occupation of the site. Ocós Specular Red is a strategic marker for this phase.

Another grouping of types appears in the middle levels of E–4 and Pit 2 (and rather early in E–5 in which little Ocós material was found). These set off the beginning of the Conchas 1 subphase from Ocós, and include Conchas Red Unburnished and Conchas White-to-buff; the former appears a little later than the latter which I believe was introduced from another area. In the later Conchas 2 subphase, Conchas Red Unburnished and Conchas White-to-buff become very popular types at the site. They occur in Conchas 1 levels during the peak of Ocós Black popularity. Other Conchas 1 types which persist through Conchas 2 are Conchas Red-and-white and Conchas Red-on-buff. Conchas Brown Unburnished is a minor but distinct increment in Conchas 1. Conchas 2 represents the major occupation of La Victoria and is marked by the appearance of Conchas Orange, a well-defined type which never reaches a very high percentage as compared with Conchas Red Unburnished and Conchas White-to-buff. Other minor types in Conchas 2 are Conchas Streaky Brown-black, Conchas Fine White-to-buff, and Conchas Fine Red-on-cream, besides the persisting Ocós types already mentioned. Río Blanco Orange, known only from a sherd and an almost whole vessel, is an exotic type in a Conchas 2 level of E–5.

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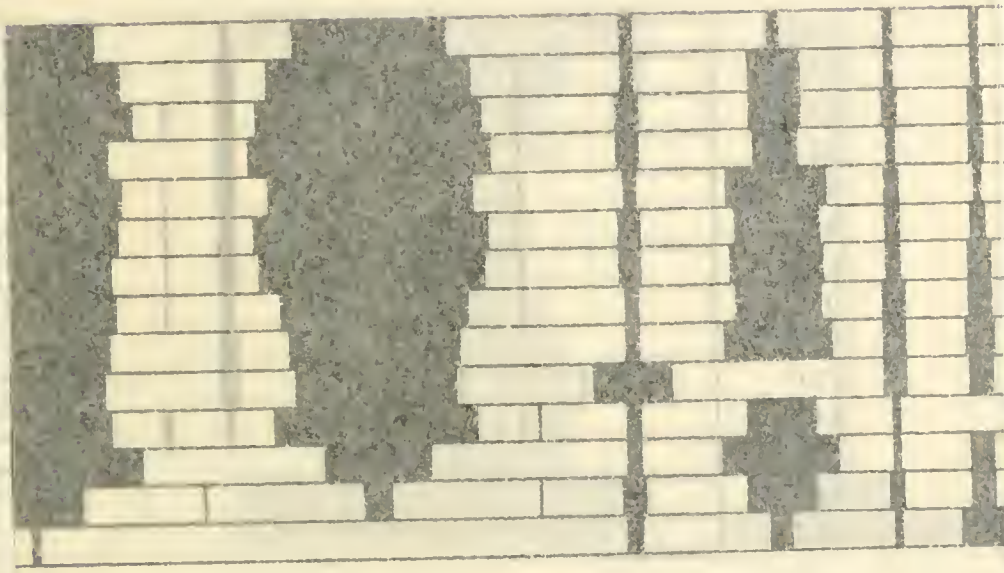

FIG. 9. Graph of pottery type percentages by level, 1–5.

Necessity resulting from the lack of clearly differentiated "natural" layers throughout most of the deposits at La Victoria forced us to rely entirely on so-called "metrical stratigraphy," or artificial levels. There were, it is true, some qualitative differences observable on the sides of most pits after excavation, and these were recorded. These differences comprise layers of adobe lumps (the remains of old walls), clay floors, contrasting soil colors, and shell layers. Only the clay floors and shell layers were readily discernible during actual excavation. In a steeply contoured mound the use of a rigid metrical stratigraphy will naturally be out of line with the actual parabolic layers of the deposit. Mound III was so low and flat that even if there had been a parabolic curve to the superimposed mantles of debris, it would have produced only a slight obliteration of the evidence. It so happened that most of the "natural" stratigraphy was remarkably flat.

A comparison of the "natural" with the "metrical" stratigraphy should show a correlation with the sequence of phases already established by other means. An examination of the North–South section of Mound III (fig. 5)

Conchas Brown Unburnished
Conchas White-to-buff
Conchas Streaky Brown-black
Conchas Red-and-white
Conchas Red-on-buff
Conchas Orange
Conchas Fine White-to-buff
Conchas Fine Red-on-cream
Río Blanco Orange
Crucero Red-on-orange
San Juan Plumbate

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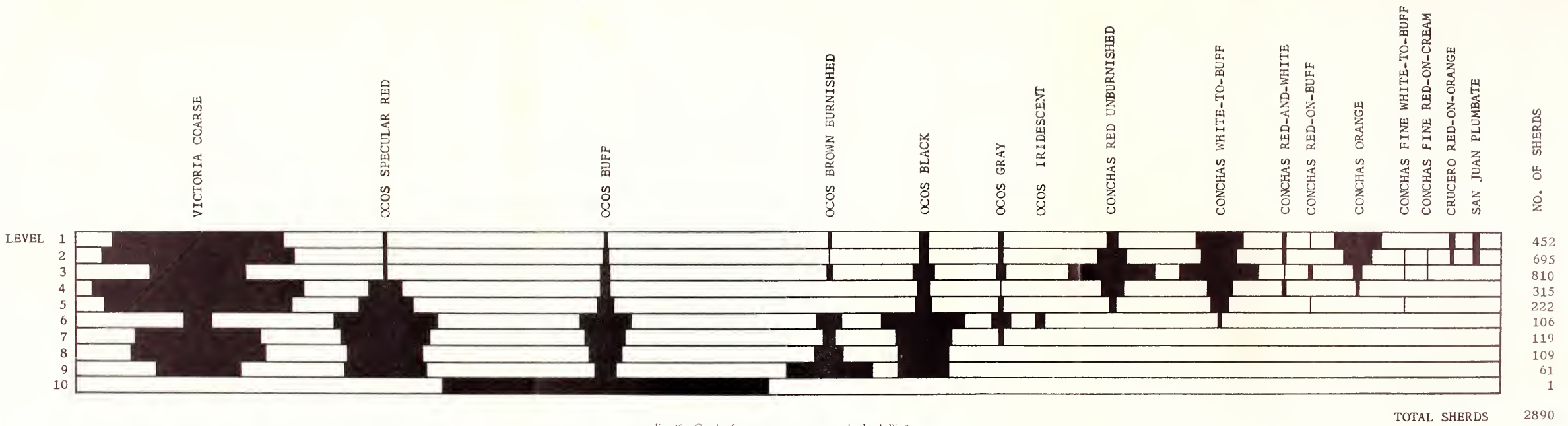

Fig. 10. Graph of pottery type percentages by level, Pit 2.

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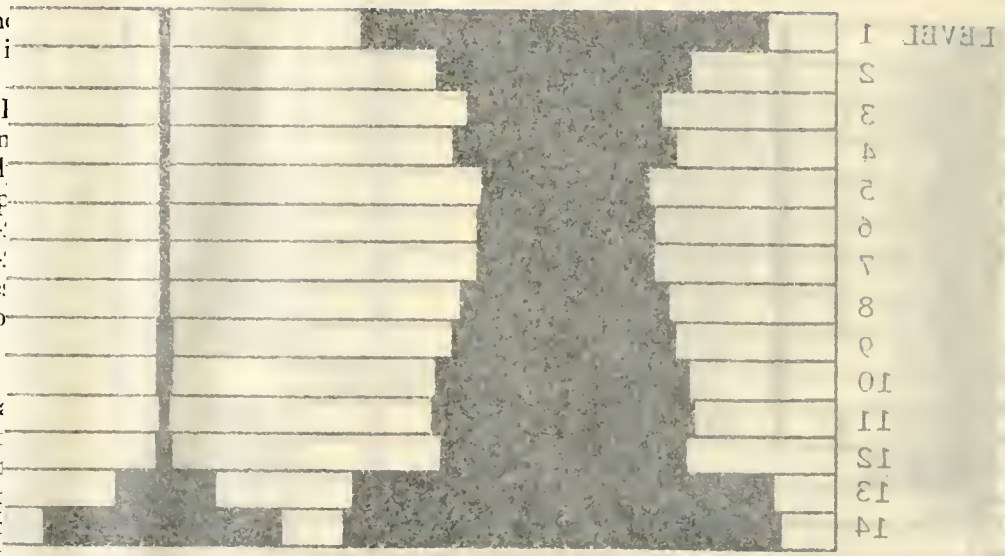

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the late peak for this type was actually in Marcos.

I have considered that all types with the exception of Conchas Orange, Victoria Coarse, and Crucero Red-on-orange were no longer being produced in Crucero times and that only Victoria Coarse, San Juan Plumbate, and the anomalous sherds above-mentioned belong in Marcos. Both Crucero and Marcos are extremely light occupations in comparison with Conchas, and are restricted to the very top of the site. There has been much churning of this land surface by such agencies as aboriginal cultivation, falling trees, burrowing animals (who carry their pranks to disconcertingly low levels), etc. It is assumed, and I think with justification, that the presence of Conchas and even Ocós material in quantity in the upper levels of La Victoria is the result of redeposition, not contemporaneity. By the same token, the presence of San Juan Plumbate along with Crucero types should not be interpreted as continuity of any sort; the chronology of other excavated sites indicates a light occupation following a long hiatus (covering most of the Classic), with subsequent soil churning.

It is not only the distribution of ceramic types which has been the basis for the isolation of four phases at La Victoria, but also the presence or absence of decorative techniques, vessel shapes, and of artifacts other than pottery vessels. Characteristic of the Ocós phase are rocker-stamping of several kinds, dentate stamping, fabric-marking, cord-marking, striped lines done in an iridescent paint, zoned burnishing (contrasting roughened and burnished zones), and the plastic decoration known as "finger drag" (*see* tables 6–8). Excision, or scraping away of rectilinear areas, on Ocós Black is a distinguishing feature of the Conchas 1 subphase, as is broad-line burnishing (sometimes called "pattern-burnishing"). Post-slip, pre-firing incision is such a prevalent trait throughout the sequence that it was not considered as of chronological importance. It was, however, most frequently used on vessels of the Conchas 1 and 2 subphases.

Vessel shapes which have been utilized in the determination of phases at the site are the thin-walled neckless jar, both tripod and unsupported, an Ocós feature; the heavy neckless jar, the flat-bottomed dish with flaring sides, the cuspidor, the tripod grater bowl, and the composite silhouette bowl, all referred to the Conchas phase (Conchas 1 and 2 can be differentiated on the basis of minor differences in grater bowl forms); the S-Z angle bowl and the bowl with a lateral flange of Crucero; jars with tall necks and various typical San Juan Plumbate shapes, characteristic of Marcos.

Certain artifacts also show the required complementary distribution through time (tables 7–14). Characteristic figurines with pinhole-punched eyes are in Ocós levels. Conchas has solid and hollow figurines with large punched eyes, solid pottery ear plugs and polished "napkin-ring" ear spools, and roller stamps. It has been difficult to distinguish Crucero from Marcos by artifacts on any basis other than a comparative-typological one, debris from the two phases being mixed, as explained previously.

"NATURAL" AND "METRICAL" STRATIGRAPHY

Necessity resulting from the lack of clearly differentiated "natural" layers throughout most of the deposits at La Victoria forced us to rely entirely on so-called "metrical stratigraphy," or artificial levels. There were, it is true, some qualitative differences observable on the sides of most pits after excavation, and these were recorded. These differences comprise layers of adobe lumps (the remains of old walls), clay floors, contrasting soil colors, and shell layers. Only the clay floors and shell layers were readily discernible during actual excavation. In a steeply contoured mound the use of a rigid metrical stratigraphy will naturally be out of line with the actual parabolic layers of the deposit. Mound III was so low and flat that even if there had been a parabolic curve to the superimposed mantles of debris, it would have produced only a slight obliteration of the evidence. It so happened that most of the "natural" stratigraphy was remarkably flat.

A comparison of the "natural" with the "metrical" stratigraphy should show a correlation with the sequence of phases already established by other means. An examination of the North–South section of Mound III (fig. 5)

shows that the "natural" stratigraphic zones do enclose cultural debris of chronological significance. As can be seen in the section, pure Ocós material is localized below a line which can be drawn across the top of the pale yellowish earth layer near the bottom of the site. This layer presumably represents an old land surface, and is in most places either sterile or only contains a few Ocós sherds. Much richer deposits of Ocós phase debris came from the very amorphous pit which dips down in the northwestern corner of E–3 and the southwestern corner of E–4. From the mottled and amorphous soil zones below this pit came further Ocós sherds and artifacts. Conchas 1 is clearly confined to the zones labeled "dark earth" and "light brown earth, compact"; these zones include both the extensive shell layers which are such a marked feature of La Victoria, and also a clay floor (within the "light brown earth" zone in E–5). Conchas 2 begins with the line on the section marking the division between the "light brown earth" zone and a zone labeled "very dark earth" and includes all of the latter; most of the overlying "light ocher earth" zone is also Conchas 2, to the top of the uppermost layer of "adobe lumps" (best seen in E–5). Cultural features in Mound III which are assigned to Conchas 2 therefore include the shell layer and clay floors overlying the "very dark earth" zone and the layers of adobe lumps above-mentioned. It is apparent that the slightly parabolic slope of Mound III was the result of house platform construction (and the subsequent destruction of the wattle-and-daub walls of these houses) rather late in Conchas 2. There are no stratigraphic indications that the levels in which Crucero and Marcos debris is found differs in any discernible way from the "light ocher earth" zone, other than the fact that these two phases are localized above the final "adobe lump" layer. The very top zones, comprising the thin and, of course, sterile volcanic ash layer and the few centimeters of the "dark gray topsoil," contain nothing unusual except a few fragments of the modern period like a rifle shell, broken glass, and so forth, besides the expected redeposited sherds from the aboriginal occupation, usually much burned or eroded.

Pit 2, out in the flat away from the mounds, was cut through older land surfaces which seem not to be differentiated from each other as soil zones (fig. 7). Although I have drawn distinctions between what appear to be layers with slightly different coloration or textural quality, these so intergrade that the section as pictured is an extreme exaggeration. No changes in "natural stratigraphy" can be surely correlated with cultural changes in this pit, with the exception that the peculiar marbling of red, pale yellow, dark, and dark to reddish clayey soils showing up on the west and north faces of Pit 2 contain the bulk of the purely Ocós material found here. As seen on the pottery chronology chart (fig. 10), Conchas pottery types begin their appearance in Level 6 of Pit 2, which mainly lies above this stratigraphic feature. The marbling effect with interleaved color zones, I believe, represents the presence of some kind of mud-filled depression. The soil zones toward the top of Pit 2 may well be the result of soil weathering.

Level	*20*	*19*	*1*
Victoria Coarse	7	7	1
Ocós Red Burnished			
Ocós Specular Red	3	5	
Ocós Buff		1	1
Ocós Brown Burnished		1	
Ocós Black	2	2	
Ocós Gray			
Ocós Iridescent			
Conchas Red Unburnished			
Conchas Brown Unburnished			
Conchas White-to-buff			
Conchas Streaky Brown-black			
Conchas Red-and-white			
Conchas Red-on-buff			
Conchas Orange			
Conchas Fine White-to-buff			
Conchas Fine Red-on-cream			
Crucero Red-on-orange			
Río Blanco Orange			
San Juan Plumbate			
TOTAL	12	16	2

shows that the "natural" stratigraphic zones do enclose cultural debris of chronological significance. As can be seen in the section, pure Ocós material is localized below a line which can be drawn across the top of the pale yellowish earth layer near the bottom of the site. This layer presumably represents an old land surface, and is in most places either sterile or only contains a few Ocós sherds. Much richer deposits of Ocós phase debris came from the very amorphous pit which dips down in the northwestern corner of E–3 and the southwestern corner of E–4. From the mottled and amorphous soil zones below this pit came further Ocós sherds and artifacts. Conchas 1 is clearly confined to the zones labeled "dark earth" and "light brown earth, compact"; these zones include both the extensive shell layers which are such a marked feature of La Victoria, and also a clay floor (within the "light brown earth" zone in E–5). Conchas 2 begins with the line on the section marking the division between the "light brown earth" zone and a zone labeled "very dark earth" and includes all of the latter; most of the overlying "light ocher earth" zone is also Conchas 2, to the top of the uppermost layer of "adobe lumps" (best seen in E–5). Cultural features in Mound III which are assigned to Conchas 2 therefore include the shell layer and clay floors overlying the "very dark earth" zone and the layers of adobe lumps above-mentioned. It is apparent that the slightly parabolic slope of Mound III was the result of house platform construction (and the subsequent destruction of the wattle-and-daub walls of these houses) rather late in Conchas 2. There are no stratigraphic indications that the levels in which Crucero and Marcos debris is found differs in any discernible way from the "light ocher earth" zone, other than the fact that these two phases are localized above the final "adobe lump" layer. The very top zones, comprising the thin and, of course, sterile volcanic ash layer and the few centimeters of the "dark gray topsoil," contain nothing unusual except a few fragments of the modern period like a rifle shell, broken glass, and so forth, besides the expected redeposited sherds from the aboriginal occupation, usually much burned or eroded.

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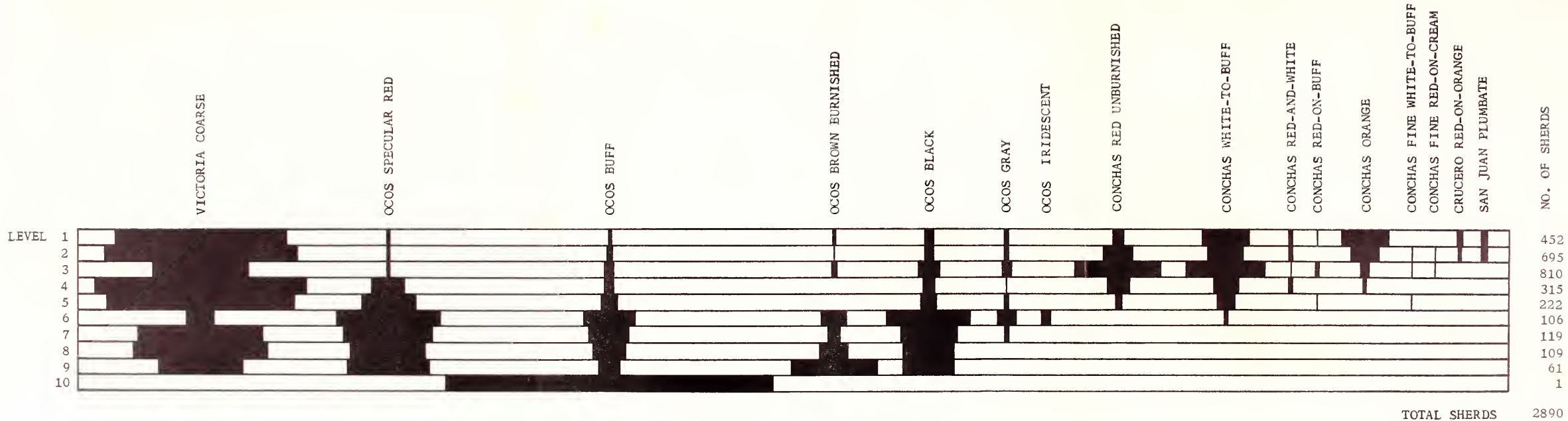

FIG. 10. Graph of pottery type percentages by level, Pit 2.

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TABLE 1. Sherd Count, E-4.

Level	*20*	*19*	*18*	*17*	*16*	*15*	*14*	*13*	*12*	*11*	*10*	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*
Victoria Coarse	7	7	1	15	48	264	231	507	222	85	112	270	200	169	103	79	107	142	187	101
Ocós Red Burnished							4	1	2											
Ocós Specular Red	3	5		8	27	140	85	109	5	9	14	26	12	9	12	10	9	10	4	1
Ocós Buff		1	1	1	10	25	13	63	22	11	17	42	78	55	26	16	29	32	25	6
Ocós Brown Burnished		1		2	3	10	9	23	4	4	13	17	31	4	8	7	9	1	1	
Ocós Black	2	2		1	2	16	29	288	147	56	122	217	300	356	280	191	179	147	89	33
Ocós Gray					3	8	10	54	39	23	45	93	140	114	87	54	56	73	35	13
Ocós Iridescent						6		2												
Conchas Red Unburnished							3	11	64	94	177	482	567	559	540	272	305	281	284	96
Conchas Brown Unburnished								3												
Conchas White-to-buff						3	28	215	44	144	197	387	469	396	483	246	304	248	186	66
Conchas Streaky Brown-black												5	5	3	4	1	2			
Conchas Red-and-white								2	1	6	8	13	26	29	16	4	11	12	19	1
Conchas Red-on-buff								11	19	2	12	10	31	16	24	15	5	2	8	
Conchas Orange									3	13	44	93	50	62	58	71	66	22	29	14
Conchas Fine White-to-buff									3	2	1	5	3	8	4	2	8	3	1	
Conchas Fine Red-on-cream											1	1	1	5	2	1			3	1
Crucero Red-on-orange																				
Río Blanco Orange																				
San Juan Plumbate																		1	5	
TOTAL	12	16	2	27	93	472	412	1289	575	449	763	1661	1913	1785	1647	969	1090	974	876	332

TABLE 2. Sherd Count, E-5.

Level	*14*	*13*	*12*	*11*	*10*	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*
Victoria Coarse	76	327	127	315	313	209	192	180	206	139	177	188	278	132
Ocós Red Burnished														
Ocós Specular Red	41	77	9	9	14	13	9	5	10	11	5	8	6	3
Ocós Buff	6	17	10	12	28	28	19	24	14	5	11	12	8	2
Ocós Brown Burnished	1	12	5	19	24	19	21	17	14	10	7	16	10	3
Ocós Black	4	54	61	84	97	105	79	99	95	83	39	55	57	5
Ocós Gray	3	18	8	20	18	18	13	20	27	14	19	20	21	5
Ocós Iridescent		1		1										
Conchas Red Unburnished		20	56	242	197	162	167	234	273	160	194	224	216	50
Conchas Brown Unburnished		1												
Conchas White-to-buff	1	68	113	185	179	148	158	170	206	150	131	206	197	44
Conchas Streaky Brown-black				6	6		1	1	3	2		1		
Conchas Red-and-white				11	14	11	5	17	16	10	12	17	14	2
Conchas Red-on-buff			9	6	9	9	10	9	2	9	7	3	5	
Conchas Orange			1	25	41	7	24	21	21	34	10	15	20	4
Conchas Fine White-to-buff			2	4	3		7	2	6		6	2	2	
Conchas Fine Red-on-cream				2	5		1	2	1	1	2	1	2	
Crucero Red-on-orange														
Río Blanco Orange					1									
San Juan Plumbate												1	2	
TOTAL	132	595	401	941	949	729	706	801	894	628	620	769	838	250

TABLE 3. Sherd Count, Pit 2.

Level	*10*	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*
Victoria Coarse		16	46	47	10	132	209	241	417	243
Ocós Red Burnished										
Ocós Specular Red		15	25	32	34	38	31	9	6	3
Ocós Buff	1	4	11	14	17	10	8	25	10	6
Ocós Brown Burnished		16	10	5	8			14	3	3
Ocós Black		10	17	20	27	21	11	57	23	14
Ocós Gray				1	6	2	1	20	9	3
Ocós Iridescent					3					
Conchas Red Unburnished						4	22	213	60	20
Conchas Brown Unburnished										
Conchas White-to-buff					1	13	25	193	78	70
Conchas Streaky Brown-black										
Conchas Red-and-white							2	4	6	5
Conchas Red-on-buff						1	3	5		2
Conchas Orange							3	24	60	66
Conchas Fine White-to-buff						1		4	1	
Conchas Fine Red-on-cream								1	1	
Crucero Red-on-orange									7	9
Río Blanco Orange										
San Juan Plumbate									14	8
TOTAL	1	61	109	119	106	222	315	810	695	452

TABLE 4. Decorative Techniques, E-4.*

Level	*20*	*19*	*18*	*17*	*16*	*15*	*14*	*13*	*12*	*11*	*10*	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*
Plain rocker-stamping								1								1				
Dentate rocker-stamping				1			1													
Shell rocker-stamping				1	1	9	3	1				1	1	1		2	1	1	1	1
Fabric impression						2	3	2									1			
Cord-marking		1			1		3	3			1	1	2	1		1				
Punctation		1			1		3		1		1		3	1		2			1	
Drag-and-jab								1												
Iridescent painting	1			3	9	38	23	22		1	3	1	3	4		2	2	2		
Broad-line burnishing							3	6			2		1	2			1			
Indented-line burnishing	1	1			2	22	6	4			1	3	1	1	1	4	2	1		
Zoned burnishing						8		2	1					1		1		1		
Finger drag																				
Net- or knot-roughened							1													
Pinching				1																
Random stick impression																				
Excision								7	4		1	1		1	1	1		2	1	

* Presented as a sherd count.

TABLE 5. Decorative Techniques, E-5.*

Level	*14*	*13*	*12*	*11*	*10*	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*
Plain rocker-stamping		2												
Dentate rocker-stamping	1	1					1	1						
Shell rocker-stamping	2	4										1		
Fabric impression	1	1												
Cord-marking	2	2				2							1	
Punctation				2	2		2						1	
Drag-and-jab	1													
Iridescent painting	8	21	1		10	1		1	2	2			2	
Broad-line burnishing			1		1		1		1		1		1	
Indented-line burnishing		2		2						1			1	
Zoned burnishing		2			2	2							1	
Finger drag														
Net- or knot-roughened														
Pinching														
Random stick impression						1								
Excision						1				1				

* Presented as a sherd count.

Table 6. Decorative Techniques, Pit 2.*

Level	*10*	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*
Plain rocker-stamping										
Dentate rocker-stamping	1	2	1							
Shell rocker-stamping		2	2	3	2	2	2			
Fabric impression										
Cord-marking	1	1	1	2			2	1		
Punctation										
Drag-and-jab										
Iridescent painting		1	2	1		9	9	1		
Broad-line burnishing										
Indented-line burnishing		9	3	9	2	10		1		
Zoned burnishing		9	17	14	27	6				
Finger drag					1					
Net- or knot-roughened					1					
Pinching						1				
Random stick impression										
Excision								1		1

* Presented as a sherd count.

TABLE 7. Artifacts, Pit 1.

Level	*6*	*5*	*4*	*3*	*2*	*1*
POTTERY						
Sherd disks						
Sherd disks, small						
Notched sherds					1	1
Sherd disks, incompletely drilled						
Sherd disks, drilled			1			
Sherd pendant						
Sherd abraders			1	2		1
Sherd disks, oblong						
Whistles			2			
Ear spools					5	3
Ear plugs, solid				1		
Figurines, Ocós type		2	1			
Figurines, smaller Conchas type			1	16	16	9
Figurines, large hollow Conchas			4	1	2	
Figurines, Marcos type						
Mask?						
Roller stamps						
Flat stamps						
Prong from incensario?						
Effigy finger bone						
Cylindrical bead						
Spindle whorl						
STONE						
Metates or milling stones			1	4	3	
Manos					1	
Bowls or mortars						
Pestles						
Pebble grinders and/or pounders				1		2
Spherical hammerstones						
Small stone balls						
Notched stones (net weights?)						
Polished celts						1
Flake axe						
Grooved axe						
Palettes?			1			
Bark beater						
Jade bead						
Drilled disk, pumice						
Abrader, pumice						
Obsidian blades				1	2	4
Obsidian scrapers			1		1	2
Obsidian spokeshaves					1	
Unworked flakes, obsidian	10	4	5	4	12	11
BONE						
Pendant						
Pendant, canine tooth						
Fish vertebrae spools						
SHELL						
Agaronia shells, pierced						

TABLE 8. Artifacts, Pit 2.

Level	*10*	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*
POTTERY										
Sherd disks										
Sherd disks, small										
Notched sherds										
Sherd disks, incompletely drilled										
Sherd disks, drilled										
Sherd pendant										
Sherd abraders										
Sherd disks, oblong										
Whistles										
Ear spools										
Ear plugs, solid										
Figurines, Ocós type						1				
Figurines, smaller Conchas types								16	3	2
Figurines, large hollow Conchas								2	1	
Figurines, Marcos type										
Mask?										
Roller stamps										
Flat stamps										
Prong from incensario?										
Effigy finger bone										
Cylindrical bead										
Spindle whorl										
STONE										
Metates or milling stones			2	2	2			1		
Manos			2		2			1		
Bowls or mortars										
Pestles			1							
Pebble grinders and/or pounders		2		1	1			1		
Spherical hammerstones										
Small stone balls								1		
Notched stone (net weight?)										
Polished celts										
Flake axe										
Grooved axe										
Palettes?										
Bark beater										
Jade bead										
Drilled disk, pumice										
Abrader, pumice										
Obsidian blades									1	
Obsidian scrapers			1	1	2	2		1	1	
Obsidian spokeshaves			2		1	2				1
Unworked flakes, obsidian		7	17	31	18	20	5	3	1	
BONE										
Pendant										
Pendant, canine tooth										
Fish vertebrae spools										
SHELL										
Agaronia shells, pierced										

TABLE 9. Artifacts, E-3.

Level	*20*	*19*	*18*	*17*	*16*	*15*	*14*	*13*	*12*	*11*	*10*	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*
POTTERY																				
Sherd disks																				
Sherd disks, small							1			2		1	1			1				
Notched sherds								2				1		1			1			
Sherd disks, incompletely drilled								1						1			1			
Sherd disks, drilled																				
Sherd pendant																				
Sherd abraders						1		2								5	1	1	2	
Sherd disks, oblong																				
Whistles											1									
Ear spools										1	5	13	15	9	4	6	6	5	3	2
Ear plugs, solid														2			1			
Figurines, Ocós type		4					1	1		1										
Figurines, smaller Conchas types									4	8	14	17	24	16	6	18	12	19	4	4
Figurines, larger hollow Conchas									3	5	3	5	6	3	3	2	1	6	3	
Figurines, Marcos type																				
Mask?											1									
Roller stamps																				
Flat stamps																				
Prong from incensario?																				
Effigy finger bone																				
Cylindrical bead																				
Spindle whorl																				
STONE																				
Metates or milling stones		3						2	1					1	1	1		4	2	
Manos		1				1			1			1		1	1					2
Bowls or mortars											1							1		
Pestles														1						
Pebble grinders and/or pounders								2	1	1								1		
Spherical hammerstones																				
Small stone balls																1				
Notched stone (net weight?)																				
Polished celts																				
Flake axe																				
Grooved axe																				
Palettes?																				
Bark beater																				
Jade bead																				
Drilled disk, pumice																				
Abrader, pumice							2		1			1				1				
Obsidian blades											2	1	3		2		1			
Obsidian scrapers						1	5	1	1				2							
Obsidian spokeshaves							1						1			1				
Unworked flakes, obsidian		12	1	2	3	11	22	33	15	12	4	23	17	11	2	9	11	4		
BONE																				
Pendant		1																		
Pendant, canine tooth																				
Fish vertebrae spools												1								
SHELL																				
Agaronia shells, pierced																				

TABLE 10. Artifacts, E-4.

Level	*20*	*19*	*18*	*17*	*16*	*15*	*14*	*13*	*12*	*11*	*10*	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*
POTTERY																				
Sherd disks																				
Sherd disks, small								3					1		1					
Notched sherds						2		1												
Sherds disks, incompletely drilled																1				
Sherd disks, drilled																				
Sherd pendant																				
Sherd abraders				1		3	1	2	5	2	1	5	3	2	5	2	2		3	
Sherd disks, oblong																				
Whistles																				
Ear spools						1		2	4	1	1	7	15	19	10	4	4	3	1	1
Ear plugs, solid									1			2	2		4		1		1	
Figurines, Ocós type	1				1						1	1								
Figurines, solid Conchas types								4	7	10	10	25	33	24	22	8	22	10	12	5
Figurines, large hollow Conchas								3	4	2	1	11	10	3	8	4	4		2	1
Figurines, Marcos type																				
Mask?																				
Roller stamps																				
Flat stamps																				
Prong from incensario?																				
Effigy finger bone																				
Cylindrical bead																				
Spindle whorl																				
STONE																				
Metates or milling stones					1	1	2	2		1	1	1		1				2	2	1
Manos						1														
Bowls or mortars				1		1														
Pestles														1			1			
Pebble grinders and/or pounders						2				1				1		1				
Spherical hammerstones								1												
Small stone balls																				
Notched stone (net weight?)																				
Polished celts											1									
Flake axe																				
Grooved axe																				
Palettes?							1						2							
Bark beater																				
Jade bead																				
Drilled disk, pumice						1														
Abrader, pumice						1			1		1		2	2		1	2			
Obsidian blades									1			1	2	3	4	1	1	1		
Obsidian scrapers					3		2				1		1	2					1	
Obsidian spokeshaves										1										
Unworked flakes, obsidian	3		2	3	28	56	29	17	6	6	12	18	11	11	17	15	5	8		
BONE																				
Pendant																				
Pendant, canine tooth															1					
Fish vertebrae spools																	1			
SHELL																				
Agaronia shells, pierced								2												

TABLE 11. Artifacts, E-5.

Level	*14*	*13*	*12*	*11*	*10*	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*
POTTERY														
Sherd disks														
Sherd disks, small		2	5			1								
Notched sherds		1			1							1		
Sherd disks, incompletely drilled											1			
Sherd disks, drilled													1	
Sherd pendant														
Sherd abraders		1	1	1	2	2	1	3	1	2		3	2	
Sherd disks, oblong														
Whistles														
Ear spools			2	3	4		3		1		2	1	1	
Ear plugs, solid				3					1		1			
Figurines, Ocós type	2			2										
Figurines, smaller Conchas type		1	4	16	15	8	9	7	5	12	7	7	12	
Figurines, large hollow Conchas			1		1	5	2	2	3	2	1	5	1	
Figurines, Marcos type														
Mask?														
Roller stamps									1	1				
Flat stamps														
Prong from incensario?														
Effigy finger bone														
Cylindrical bead														
Spindle whorl														
STONE														
Metates or milling stones	1	2		1	1	2	1	1		1			2	
Manos		1		1	2	1						1		
Bowls or mortars														
Pestles					1									
Pebble grinders and/or pounders							1					2		
Spherical hammerstones														
Small stone balls														
Notched stone (net weight?)														
Polished celts														
Flake axe								1						
Grooved axe														
Palettes?														
Bark beater														1
Jade bead														
Drilled disk, pumice														
Abrader, pumice	1	1			1			1		1		1		
Obsidian blades				1	2		1	2						
Obsidian scrapers		1			3			1		1			1	
Obsidian spokeshaves					1									
Unworked flakes, obsidian	22	17		4	13	13	2	3	3	1		5	2	
BONE														
Pendant														
Pendant, canine tooth														
Fish vertebrae spools														
SHELL														
Agaronia shells, pierced														

TABLE 12. Artifacts, E-6.

Level	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
POTTERY															
Sherd disks															
Sherd disks, small					6		1								
Notched sherds									1		1				
Sherd disks, incompletely drilled															
Sherd disks, drilled															
Sherd pendant											1				
Sherd abraders				1	2	6	4		1	1	1	1			
Sherd disks, oblong															
Whistles					1				1?						
Ear spools					1	1	4	5		4	2	1	1	1	1
Ear plugs, solid					1					1		1	2		
Figurines, Ocós type		1	2												
Figurines, smaller Conchas types					2	11	25	14	10	8	15	14	8	11	2
Figurines, large hollow Conchas					2	1	3	2	2	4	1	3	2	1	
Figurines, Marcos type															
Mask?															
Roller stamps														1	
Flat stamps													1		
Prong from incensario?															
Effigy finger bone															
Cylindrical bead															
Spindle whorl															
STONE															
Metates or milling stones			1		1		2	1		2	1	2	1		
Manos					1		1						1		
Bowls or mortars								1	1						
Pestles					1										
Pebble grinders and/or mortars								1				2			
Spherical hammerstones															
Small stone balls															
Notched stone (net weight?)															
Polished celts									1						
Flake axe															
Grooved axe							1								
Palettes?															
Bark beater															
Jade bead								1							
Drilled disk, pumice															
Abrader, pumice							1	1		1	1				
Obsidian blades					1	1	2	2				2	2	2	
Obsidian scrapers		1		1	1		2	3			1			1	
Obsidian spokeshaves															
Unworked flakes, obsidian		7	11	18	28	4	6	7	1	4	3	2	2	1	
BONE															
Pendant															
Pendant, canine tooth															
Fish vertebrae ear spools								1							
SHELL															
Agaronia shells, pierced															

TABLE 13. Artifacts, F-5.

Level	*15*	*14*	*13*	*12*	*11*	*10*	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*
POTTERY															
Sherd disks															
Sherd disks, small			1	2	5						2	1	1		
Notched sherds															
Sherd disks, incompletely drilled															
Sherd disks, drilled															
Sherd pendant															
Sherd abraders					1				1	1		1	1		
Sherd disks, oblong															
Whistles															
Ear spools				2	9	2	6	10		6	5		6	2	
Ear plugs, solid					1	1		1		2			2		
Figurines, Ocós type		2		2	2				1						
Figurines, smaller Conchas types			1	7	21	19	23	14	25	10	12	25	13	5	
Figurines, large hollow Conchas			1		5	8	6	11	5	4	3	10	5	2	
Figurines, Marcos type															
Mask?				1											
Roller stamps															
Flat stamps															
Prong from incensario?							1								
Effigy finger bone												1			
Cylindrical bead												1			
Spindle whorl												1			
STONE															
Metates and milling stones			1	2	1						1	1		1	1
Manos			1					1							
Bowls or mortars				1				1				1			
Pestles															
Pebble grinders and/or pounders						1				1					
Spherical hammerstones															
Small stone balls															
Notched stone (net weight?)									1						
Polished celts															
Flake axe															
Grooved axe															
Palettes?															
Bark beater															
Jade bead															
Drilled disk, pumice															
Abrader, pumice												1			
Obsidian blades						2			1	3	1	1		1	2
Obsidian scrapers							1								
Obsidian spokeshaves															
Unworked flakes, obsidian (no count)															
BONE															
Pendant															
Pendant, canine tooth															
Fish vertebrae spools													1		
SHELL															
Agaronia shells, pierced															

Table 14. Artifacts, G-5.

Level	*11*	*10*	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*
POTTERY											
Sherd disks											
Sherd disks, small			18	20							
Notched sherds			1								
Sherd disks, incompletely drilled				1							
Sherd disks, drilled											
Sherd pendant											
Sherd abraders			3	4	1						
Sherd disks, oblong											
Whistles											
Ear spools				15		12	4	6	6	4	
Ear plugs, solid						3					
Figurines, Ocós type			2								
Figurines, smaller Conchas types			6	16	24	12	6	23	23	17	2
Figurines, large hollow Conchas		1	29	16	6		1		3		1
Figurines, Marcos type									1	1	
Mask?											
Roller stamps											
Flat stamps											
Prong from incensario?											
Effigy finger bone											
Cylindrical bead											
Spindle whorl											
STONE											
Metates or milling stones		3	3			2			2		1
Manos		3	3								
Bowls or mortars									2		
Pestles											
Pebble grinders and/or pounders											
Spherical hammerstones											
Small stone balls											
Notched stone (net weight?)											
Polished celts											
Flake axe											
Grooved axe											
Palettes?											
Bark beater											
Jade bead											
Drilled disk, pumice											
Abrader, pumice									1		
Obsidian blades						3			1	1	
Obsidian scrapers		1									
Obsidian spokeshaves											
Unworked flakes, obsidian	(no count)										
BONE											
Pendant											
Pendant, canine tooth											
Fish vertebrae spools											
SHELL											
Agaronia shells, pierced											

Chapter VII

THE POTTERY OF LA VICTORIA

INTRODUCTION

A FEATURE of the La Victoria pottery which on the one hand makes analysis difficult but on the other is of cultural significance is what I can only call the "family effect." It cannot be denied that the lines of demarcation between several types, in particular between Conchas White-to-buff, Ocós Gray, and Ocós Black, are very hard to draw. Their ranges of variation seem to overlap as far as surface characteristics go; moreover, within such types, the ranges of variation are very large (the name "Conchas White-to-buff" is an indication of this). A similar problem is found at Chiapa de Corzo. The obvious explanation would be that such closely related types were all produced by the same potter or group of potters who endeavored, by varying firing conditions on a very few varieties of slips, to manufacture several kinds of ceramics with the minimum of cost or effort. This "family effect" is a particular characteristic of Conchas phase pottery.

In this chapter will be described the pottery recovered from the excavations at La Victoria, with detailed type descriptions, the forms found within each type, and the distribution in time and space of comparative material. The description of each pottery type will be found under the heading of the phase within which it was introduced.

Type descriptions include most visual and other physical characteristics which could be observed without the use of the equipment necessary to more complex technological study. Color designations are according to the Munsell system; in parenthesis following the Munsell code designation are the equivalent names designed for soil scientists using Munsell. This is believed to make visualization of the color easier for those readers without Munsell charts, but at best such terms are only approximations. Hardness could not be given an absolute rating, as a Moh's scale was not available to me in Guatemala. I have, however, rated pastes on a rough-and-ready scale of my own—soft, fairly hard, hard, and very hard—based on resistance to scratching by a pocket knife. Miss Anna O. Shepard very kindly made a preliminary analysis of tempers in selected sherds under a binocular microscope and, using a hand lens, I have attempted a broad sorting of temper of materials using the criteria which she furnished. As no one sherd or vessel can stand for a type, which is an abstraction covering a specified range of variation of visual features, for each type such variation in analyzable attributes will be given.

Comparative material for types and shapes will be restricted to Middle America in this chapter. More distant relationships will be outlined in a later chapter.

SHAPE TERMINOLOGY

The various terms for vessel shapes are listed below, with accompanying definitions. However, with virtually no whole vessels in the La Victoria collections, it would be very difficult to conform to definitions strictly based on vessel dimensions. After the shape terminology there follows a glossary of auxiliary features which, together with the former, make up the phrases with which the various pottery forms will be denoted.

Basic Shapes

Bowl: an open vessel with convex walls the height of which is usually less than one-half the diameter.

Simple silhouette bowl: a bowl with simple curved sides which have been unaltered by shape changes;

the vessel mouth is unconstricted; the base may be flat or rounded.

Incurved rim bowl: a bowl in which the mouth is slightly constricted by an incurving of the vessel walls.

Deep bowls: a bowl in which the height reaches its upper limits in relation to the diameter.

Composite silhouette bowls: a bowl in which the upper walls slant sharply in above a sharp angle at the maximum diameter, resulting in a constricted orifice.

Jar: a vessel in which the height is more than one-half the maximum diameter.

Neckless jar: a jar of globular to subglobular outline, with constricted orifice but lacking a neck. Often called by southwestern term, "seed jar."

Necked jar: same as the above, but with a pronounced neck above the constricted orifice which may be flaring.

Collared jar: same as the above, with a low vertical rim above the orifice rather than a true neck.

Wide-mouthed jar: a jar, usually subglobular in outline, with a wide composite silhouette rim surrounding a restricted orifice.

Cylindrical jar: a jar with flat base and vertical walls, with no constriction of the orifice.

Barrel-shaped jar: similar to the above, but with slightly convex walls.

Handled jar: a jar with a handle between a constricted and slightly recurved neck and the body.

Dish: a vessel with vertical or outsloping and straight to concave walls and a flat base, the height of which is less than one-half the rim diameter.

Plate: a vessel the height of which is less than one-eighth the rim diameter.

Lid: a pottery cover for a vessel.

Stool: a low seat in the form of a flat or gently concave disk attached on its underside to a cylinder or truncated cone, on which it rests.

Auxiliary Features

Straight sides: no apparent curve to the vessel walls.

Outflaring sides: slight to strong outcurving or concavity of the vessel sides.

Thickened rim: a swelling out of the rim at the lip.

Everted rim: a sharp bending out and flattening of the rim at the orifice.

Outprojecting rim: a rim which curves out at the orifice.

Beveled rim: a rim with an interior bevel, usually approximating a 45 degree angle.

Gadrooned rim: a modeled thickening of the rim at intervals, producing the effect of the outside of a melon; this intergrades with a kind of fluting.

Labial ridge: a thickening of the outside of the vessel wall just below the rim to produce an angle or ridge around the vessel.

Lateral flange: the application of an outprojecting flange near the upper part of a vessel on the exterior; when very near the rim, called a "labial flange."

S-Z angle: a double break in the direction of curvature of a vessel's walls, producing a profile which may be S-shaped if the angle is gentle and rounded, or Z-shaped if the angle is abrupt and sharp.

Indented Z-angle: same as the Z-angle above, with the addition of thumb-indented depressions along the angle on the exterior.

Horizontal ribbing: modeled fluting on the exterior of a vessel which is parallel but horizontal.

Lug: a modeled projection on the side of a vessel by means of which the vessel was presumably picked up.

Tripod: a vessel supported by three legs.

Dimpled base: a shallow concavity (when seen from below) in the base of a vessel; the vessel rests on the ridge formed by the meeting of the convex base and the concave dimple.

ANALYSIS BY PHASES

THE OCÓS PHASE

General Characteristics

Ocós pottery is characterized by its thinness, quite distinct from the heavier and thicker ceramics of later phases, by the wide range of decorative techniques in use, and by the high frequency of the thin-walled neckless jar. The paste is usually hard to very hard, and the temper is always crystal ash.

Two pottery types which bulk large in the Ocós collections are Victoria Coarse, predominantly derived from the thin-walled, tripod neckless jars of that type, and Ocós Specular Red, which produces quantities of thin sherds of a deep red slip. Lesser types are Ocós Buff, Ocós Black, Ocós Gray, and Ocós Brown Burnished, with Ocós Red Burnished and Ocós Iridescent very scarce if present at all. The pottery is well made, presumably by the coiling technique, and well fired. Technically, it seems superior to the ceramic production of later phases.

The thin-walled neckless jar is the most common form. An unusual but not uncommon variation on this shape is the neckless jar with long, tripod feet known in Victoria Coarse. Other forms include somewhat heavy, flat-based dishes with flaring sides and dishes with gadrooned rims. Some of the flaring-sided dishes have beveled rims, while others have wavy, eccentric rims. Simple silhouette bowls are also common, both plain and with labial ridges which often are pinched like piecrusts. A few fragments of tall, somewhat cylindrical jars with flat bases and thin walls are present in the Ocós debris.

A large variety of decorative techniques, most of them plastic, involving mechanical alteration of the surface of the unfired vessel, were utilized in the Ocós phase. When such decoration is present, it tends to be zoned, that is confined between broad grooves in areas which usually are curvilinear. Furthermore, such zoned plastic decoration is virtually limited to the outer surfaces of thin-walled neckless jars to almost complete exclusion of other vessel shapes. It pervades, however, all pottery types. There are several kinds of rocker-stamping: plain, dentate, shell-edge, and shell-back, the latter involving rocking of the curved surface of the valve over the area. Plain dentate stamping is rarer, but present, as was punctation and drag-and-jab. Cord-marking with a wrapped paddle and in some cases, perhaps, with a ball of wrapped twine is another Ocós technique of decoration. At times it seems that even rocking of the wrapped paddle was practised. Both cord-marking and actual fabric impressing, which was also present, were means of decorating the vessel, not methods of manufacture. All of the above-mentioned types of plastic treatment were zoned *afterwards* by burnishing areas which were later set off from the roughened zones by broad lines. This is at variance with the usual Middle American and Peruvian zoning, which takes place in the reverse order, but conforms with eastern United States practice. A kind of zoned burnishing which contrasted smooth with matte or unpolished surfaces is the most common of all these plastic techniques. Simple burnished lines are found alone on roughened surfaces or in combination with burnished zoning; these lines were made by dragging a stick or other burnishing tool under pressure across the surface. A few sherds of the Ocós phase have fingernail impressions, and a very few have evidently been knot- or net-roughened. Pinching is also a rare surface treatment.

Bichrome slipping or painting is absent, but frequently found on Ocós pottery is an iridescent paint, used both as a means of decoration and as a basic slip. This iridescent paint when thickly applied reflects light in such a way that it appears to be a metallic pink, but when the coating is thinner or burned it has a silvery appearance. This paint may be applied as stripes on Ocós Buff or Ocós Specular Red dishes with beveled rims, as zoned curvilinear areas on Ocós Specular Red thin-walled neckless jars, or on Ocós Iridescent as an all-over slip or paint.

What is absent in Ocós is as striking and significant as what is present. In the Ocós phase there is no bichrome or polychrome decoration, no handles, spouts, annular bases, ring bases, flanges, bottles, composite silhouettes, lids, nor anything which can be definitely identified as an incensario. However, in spite of the generally limited form repertory, all the pottery is of high standards of manufacture and cannot be considered primitive. In fact, from the great interest of the Ocós potters in surface manipulation, and from the use of iridescent paint and slips of fine color, an effect of opulence was achieved which would be hard to match elsewhere in Middle America.

Ceramic Types of the Ocós Phase

VICTORIA COARSE

Paste: soft to hard, with most fairly hard. Crystal ash temper, although occasionally a use of beach sand. Occasionally quite carbonaceous. Color varies from 2.5 YR 5/8 (Red) through 7.5 YR 5.5/6 (Strong Brown) to 10.0 YR 4.5/3 (Brown). Dark cores absent.

Surface: unslipped, unburnished. Appearance varies from wiped to crude and lumpy. On those vessels with iridescent painting on rims, occasionally indications of a thin red wash are present.

Color: from 2.5 YR 4/4 (Reddish Brown) through 7.5 YR 7/3 (Pink) to 10.0 YR 8/3 (Very Pale Brown); many sherds too fire-blackened for color determination.

SHAPES:

Thin-walled neckless jars, tripod (figs. 14–16)

Form: neckless jars, globular to subglobular in outline, with thin walls. These vessels were supported by three long-shouldered tripod feet which are solid except at the top where they meet the bodies, where they have a hollow within. The feet taper to a point.

Dimensions: rim diameter 13–18 centimeters, average 16 centimeters. Largest body diameter (from two examples only) 25 centimeters and 29 centimeters; others were often much wider. Estimated height not including feet 15–30 centimeters, varying with rim diameters. Wall thickness .4–1.1 centimeters, average 18 centimeters. Foot height 8–14 centimeters, average 10 centimeters (from break of shoulder).

Decoration: usually a band of iridescent paint extending from the rim 1.5–4.0 centimeters down on the body around top of vessel, with one to four (most often two) pre-slip shallow horizontal grooves associated. A few have specular red instead of iridescent rims (fig. 16); of these, three sherds show latticework crisscross line grooving below the painted area on the exterior (as does one with iridescent rim), while one has specular red paint also daubed on the body. Two sherds show zoned iridescent bands which have been slightly modeled on the body. It is likely, but cannot be proved from the available evidence, that some shell-edge rocker-stamped and cord-marked sherds belong to this form.

Comparative material: Chiapa de Corzo (*NWAF* collections), identical form and shallow grooving in Chiapa I, but tripod legs lacking. Iridescent rims on neckless jars found by Carlos Navarrete in Trench A–100, cut into gully fill near Mound I. *Mirador*, reported discovery in 1958 by F. Peterson of thin-walled neckless jars with iridescent rims but lacking feet in Mirador I deposits (personal information Carlos Navarrete). *Zacualpa*, Wauchope (1948, p. 112) reports long tripods in Balam phase, but these are hollow and are associated with vessels with wide, everted rims, and other features of late Formative or Proto-Classic affiliations. See Wauchope (1948, pp. 99–100) for detailed discussion of "tall tripods," which occur usually late in Middle America. *Tlatilco*, neckless jar with handles, long tripod legs (Piña Chan, 1958, fig. 33, *o*), bowl with long tripod legs (Piña Chan, 1958, fig. 33, *p*), both in "café negruzco"; long tripod feet appear on necked jars at site (Porter, 1953, pl. 12, *f*).

Dishes, animal-head lugs (fig. 40, *d–e*, *g–h*)

Form: flat-bottomed dishes, unsupported, usually with out-flaring sides. There are animal head lugs below the rim on the exterior, probably two to a vessel.

Dimensions: (two examples) 13 and 23 centimeters diameter at rim. Height 6 and 5.7 centimeters. Wall thickness .6–1.1 centimeters.

Decoration: large solid projecting lugs; one of two copulating toads (fig. 40, *e*), other two of unidentified animals. One interior (fig. 40, *h*), burnished iridescent slip.

Simple silhouette bowls (fig. 23, *f*)

Form: open bowls with plain rims, bases presumably flat and unsupported.

Dimensions: one vessel has rim diameter of 18 centimeters. Height about 5.5 centimeters. Wall thickness .6 centimeter.

Decoration: one sherd with shell-edge rocker-stamping on interior, others plain.

Miniature vessels (fig. 23, *b–e*)

Form: out of 6 examples, 2 are simple silhouette bowls, one is a deep bowl, one a neckless jar, two undetermined.

Dimensions: simple silhouette bowl, rim diameter 4 centimeters, greatest diameter 4.3 centimeters; height 2.7 centimeters; wall thickness .7–.8 centimeter. Simple silhouette bowl, rim diameter 5.0 centimeters; height unknown; wall thickness .7 centimeter. Deep bowl, rim diameter 6.0 centimeters; height unknown; wall thickness .7 centimeter. Neckless jar, rim diameter 5.0 centimeters, total diameter 8.0 centimeters; height unknown; wall thickness .7 centimeter.

Decoration: exterior of one simple silhouette bowl has deep latticework scoring.

Comment: interior of one simple silhouette bowl shows evidence that something was burned within it.

Incensarios? (fig. 23, *a*)

Form: thick, crudely made fragments of what may be annular bases of incensarios.

Dimensions: one example 8 centimeters in

diameter at base (?), 7.5 centimeters high to dish or bowl above, 1.0 centimeter thick. Other fragments have about same dimensions, with wall thickness up to 1.2 centimeters.

Decoration: none.

Comment: fire-blackened on exterior near what may be base, very blackened all over interior. Appear to have been placed in or near a fire. They are too small to have been stools.

OCÓS RED BURNISHED

PASTE: fairly hard. Crystal ash temper.

SURFACE: slipped, highly burnished on both interior and exterior.

COLOR: 10.0 R 4/7 (Red).

SHAPES:

Dishes, gadrooned rims (fig. 19, *m*)

Form: dish with outflaring sides, thickened and gadrooned rim, base presumably flat and unsupported.

Dimensions: outside rim diameter 20 centimeters. Wall thickness .8 centimeter.

Decoration: pre-slip horizontal grooved line and gadrooning on outer edge of lip, single pre-slip horizontal lines on body.

Comparative material: This form has a very restricted distribution in Middle America. *Chiapa de Corzo*, red-slipped dishes with rounded and thickened rims from Chiapa I level in Trench A–100 (personal information from C. Navarrete), but lack gadrooning. *Tlatilco*, flat-bottomed dish in burnished white with thickened and rounded rim, but ungadrooned (Piña Chan, 1958, fig. 38, *f*).

OCÓS SPECULAR RED

PASTE: fairly hard to hard. Crystal ash temper. Color usually near 7.5 YR 5/4, but may vary from 5.0 YR 4/4 to 10.0 YR 5.6/4. Dark cores rare.

SURFACE: depending on form, may be slipped on one or both surfaces. Slips thick, well-burnished, made from red hematite which contains high concentration of crystalline hematite. These hematite crystals produce sparkling effect on red background when turned to the light.

COLOR: usually 7.5 R 3/6 (Dark Red) to 7.5 R 3.5/6 (Red), although total range is from 7.5 R 3.5 R 3.5/4 (Dusky Red) to 10.0 R 5.6/4 (Weak Red).

COMMENT: There appear to be two periods in Middle America when specular red slips or paints are used, the Formative and the Late Classic. During the Formative, specular red was in use in Chiapa I and in the Ocós phase, and appears on zoned pottery in the Quezaltenango Valley known as "Utatlan ware"; the latter appears in the Providencia phase at Kaminaljuyu (E. M. Shook, personal information). In the Late Classic it is prevalent on or near the eastern frontier of the Maya, at sites in the Motagua Valley (Smith and Kidder, 1943) and on Copador ware at Copan (Longyear, 1952); on the Pacific coast, specular red slip is a characteristic feature of the Late Classic phase at Tiquisate (*MNAE* Coll.). It is culturally important that two closely related phases, Chiapa I and Ocós, had access to what may have been the same raw material at the same source.

SHAPES:

Thin-walled neckless jars (fig. 17)

Form: globular to subglobular neckless jars with flattened bases, no supports (although one base shows indications that it may have had tripod feet).

Dimensions: rim diameter 3–24 centimeters, average 10 centimeters. Height and greatest diameter unknown. Base diameter 10 to 12 centimeters, average 11 centimeters. Wall thickness highly variable, depending on position on vessel of measurement (greatest near outer circumference), .5–.9 centimeter, average .7 centimeter.

Surface: usually slipped on exterior only, although a few with larger rim diameters slipped on interior, too. Bases unslipped.

Decoration: most have only one or two pre-slip horizontal grooved lines just below rim exterior, or horizontal indentation with line below. One almost miniature vessel has indications of very shallow diagonal flutings on exterior. Some have zoned curvilinear bands of iridescent paint on exterior, outlined by shallow pre-slip grooves. A very few sherds are similarly zoned in other techniques including burnishing, cord-marking, fabric impressing (possibly), shell-edge and shell-back rocker-stamping.

Cylindrical to barrel-shaped jars (fig. 19, *k, left,* and *l*)

Form: fairly deep vessels with flat bases, no supports, the walls moderately convex to somewhat insloping.

Dimensions: rim diameters 18 to 25 centimeters. One presumed base has 25-centimeter diameter. Height unknown, but more than 11 centimeters. Wall thickness .7 and .9 centimeter.

Surface: slipped on all surfaces including underside of base.

Decoration: one sherd has shallow pre-slip horizontal groove one centimeter below rim on exterior.

Dishes, beveled rims (fig. 19, *g–j*)

Form: flat-based dishes with outslanting sides, rims beveled and occasionally slightly everted.

Dimensions: rim diameters 16–31 centimeters, average 27 centimeters. Height unknown. Wall thickness .7–1.3 centimeters, average .9 centimeter.

Surface: all interiors slipped, extending over lip; exteriors usually unslipped and unburnished, although a few have exterior slips. Some unslipped exteriors appear to have been lightly washed with specular red.

Decoration: a few have shallow pre-slip horizontal grooves on rim bevels. Most or all vessels had crisscross iridescent stripes on interiors, extending over rim bevels. Four out of 9 sherds have latticework indented-line burnishing on unburnished exteriors.

Dishes, gadrooned rims (fig. 19, *a–f*)

Form: dishes with outslanting sides, rims thickened and gadrooned toward exterior, bases flat and unsupported.

Dimensions: inside rim diameters 22–34 centimeters, average 29 centimeters. Height unknown. Presumed bases 19–20 centimeters diameter.

Surface: interiors slipped, as are lips. Exteriors unslipped, unburnished.

Decoration: rim gadrooning; pre-slip horizontal groove just to exterior of rim break.

Dishes, outflaring sides (fig. 18, *a–g*)

Form: dishes with medium to strongly outflaring sides, bases flat with no supports. Rims of some sherds are outcurved and wavy or eccentric.

Dimensions: rim diameters 23–32 centimeters, average 28 centimeters. Height (two examples) 4.0 and 4.7 centimeters. Base diameter (one example) 22 centimeters. Wall thickness .7–1.1 centimeters, average .9 centimeter.

Surface: all interiors slipped to exterior of lip, exteriors usually unslipped, unburnished. Out of 19 sherds, 3 have red slips on exterior, and one has an unslipped but burnished exterior.

Decoration: those with outcurved, eccentric rims usually have pre-slip horizontal groove just above break of curve. One unslipped exterior has zoned shell-edge rocker-stamping; one slipped exterior has pre-slip horizontal groove near rim and near base.

Simple silhouette bowls (fig. 18, *h, i*)

Form: known only from rims. Bases probably flat and unsupported. Rims plain, although one has a projection which may be a lug.

Dimensions: rim diameters 18–26 centimeters. Height unknown. Wall thickness .5–.7 centimeter, average .6 centimeter.

Surface: variable. Three slipped on inside and over lips, exteriors unslipped, unburnished. One sherd slipped on both sides, one sherd from vessel which was slipped on exterior and just over lip, with the interior unslipped but burnished.

Decoration: none.

Comparative material: Chiapa de Corzo, same form with specular red interior and unslipped exterior appears in Chiapa I.

Simple silhouette bowls, labial ridge (fig. 18, *j, k*)

Form: known only from rims. Presumably bowls with flat bases, no support. Convex sides, below rim exterior thickens and has a ridge.

Dimensions: rim diameter (inside) 22 centimeters. Height unknown. Wall thickness .6–.9 centimeter, average .8 centimeter.

Surface: interiors and rim exteriors down to ridge slipped. Rest of exteriors unslipped.

Decorations: labial ridges usually indented in piecrust effect; one sherd has grooves on exterior below lip. Three sherds have iridescent striping on interior, two sherds have interiors washed over with iridescent paint.

Incurved rim bowls

Form: bowls with strongly convex sides, incurved rims, bases probably flat, rims somewhat thickened.

Dimensions: rim diameter 18 centimeters. Height about 8 centimeters. Wall thickness .5 centimeter.

Surface: exterior slipped specular red over lip to just below lip on interior. Rest of interior unslipped, burnished.

Decoration: none.

Deep bowls (fig. 19, *k*)

Form: presumably bowls with flat, unsupported bases, sides somewhat convex to slightly flaring, rims plain.

Dimensions: rim diameters 26 and 29 centimeters. Height unknown, but definitely over 9 centimeters. Wall thicknesses .7 and 1.0 centimeters.

Surface: both interiors and exteriors slipped, as is base. The interior slip is more specular than that on the exterior.

Decoration: none.

OCÓS BUFF

Paste: hard. Crystal ash temper. Color ranges from 5.0 YR 5/4 (Reddish Brown) through 7.5 YR 5/4 (Brown) to 10.0 R 5.5/6 (Light Red). Cores almost always darker.

Surface: It is extremely difficult to say without more elaborate analysis whether any of these surfaces were slipped or not. One or both surfaces are burnished, the burnishing probably usually occurring on the exterior of the unslipped paste itself. Occasionally, the burnished areas show minute crackling of the surface. If any were actually slipped, the slip was almost the same color as the paste.

Color: many sherds burned and difficult to analyze. Usual range from 5.0 YR 4/2 (Dark Reddish Gray) to 5.0 YR 6/4 (Light Reddish Brown), although both 2.5 YR 4/4 (Reddish Brown) and 10.0 YR 7/4 (Very Pale Brown) occur.

Shapes:

Thin-walled neckless jars (fig. 21, *a–e*)

Form: neckless jars with flattened, unsupported bases.

Dimensions: inner rim diameters 8–16 centimeters, average 11 centimeters. Wall thickness .7–.8 centimeter, average .7 centimeter. Height unknown.

Surface: three out of four are burnished on both exterior and interior, rest on exterior only.

Decoration: most have one or more preburnish horizontal grooves on exterior just below rim. Some plain burnished below this, but on some, one of the following kinds of zoned plastic decoration occurs: rocker-stamping of the shell-edge, shell-back, dentate or plain variety, textile-impressing, cord-marking, burnishing, line-indenting, and fingernail impressing.

Dishes, beveled rims (fig. 20)

Form: dishes with outslanting sides, flat bases, no supports. The sides are relatively straight on the exterior, slightly convex on the interior. The inside surfaces of the rims are beveled; a few rims are somewhat outcurving. On a minority of bases, a slight rounding is evident.

Dimensions: rim diameters 26–35 centimeters, average 29 centimeters. Base diameters 18–22 centimeters, average 21 centimeters. Height 6.0–6.7 centimeters, average 6.4 centimeters. Wall thickness .9–1.4 centimeters.

Surface: interiors always burnished, exteriors unburnished.

Decoration: interiors usually have two wide horizontal grooves, one just below lip, the other just below the rim bevel; all have iridescent stripes of either parallel diagonals or in crisscrosses extending from the lip down to the point where the sides and base meet. One fragmentary base bears a grooved "sunburst" design on the interior, with iridescent paint in the grooves. Ten out of 22 exteriors show a wide band of broad-groove latticework scoring, done while clay was still wet on the unburnished surface.

Comparative material: see section on Ecuador and La Victoria.

Dishes, gadrooned rims (fig. 21, *f, g*)

Form: known only from rims, but presumably dishes with convex to slightly flaring sides, rims greatly thickened and gadrooned on exterior. Bases probably flat and unsupported.

Dimensions: inner rim diameters 17–22 centimeters, average 20 centimeters. Height un-

known. Wall thickness .6–.8 centimeter, average .7 centimeter.

Surface: all sherds burnished on interior and over rims, two out of five unburnished on exterior below gadrooning.

Decoration: gadrooning on rim exteriors, grooved horizontal line placed just below edge of lip on outside.

Comparative material: see same form under Ocós Red Burnished.

Simple silhouette bowls (fig. 21, *p*)

Form: simple silhouette bowls with presumably flat and unsupported bases. One example has crude flangelike lug below rim on outside.

Dimensions: rim diameters 19–22 centimeters, average 21 centimeters. Wall thickness .7–.9 centimeter, average .8 centimeter.

Surface: interiors and four out of five exteriors burnished, one exterior unburnished.

Decoration: one sherd has single, shallow, pre-burnish groove below rim on exterior. Rest undecorated.

Simple silhouette bowls, labial ridge (fig. 21, *b–n, q*)

Form: open bowls with flattened bases, convex sides, no supports. Rims are exteriorly thickened, with sometimes an appliqué ridge added.

Dimensions: rim diameters 16–23 centimeters, average 20 centimeters. Height approximately 7.5 centimeters. Wall thickness .6–.9 centimeter, average .7 centimeter.

Surface: interiors burnished, exteriors unburnished. Rims burnished to edge of ridge.

Decoration: one sherd has iridescent striping on interior, while several others bear traces of this decoration. The labial ridges were either indented in a piecrust effect, or have horizontal grooves, or are plain with occasional low tabs and indentations.

OCÓS BROWN BURNISHED

Paste: hard. Crystal ash temper. Color toward exterior often 5.0 YR 4/2 (Dark Reddish Gray), interiors 5.0 YR 4/3 (Reddish Brown) to 7.5 YR 4/2 (Dark Brown).

Surface: interiors unslipped, unburnished. Exteriors slipped with either all-over burnish or zoned burnishing.

Color: ranges from 5.0 YR 3/2 (Dark Reddish Brown) through 5.0 YR 4/2 (Dark Reddish Gray) to 5.0 YR 4.5/4 (Reddish Brown).

Shapes:

Thin-walled neckless jars (fig. 23, *j–l*)

Form: globular or subglobular neckless jars, bases presumably flat and unsupported.

Dimensions: inner rim diameters 4–28 centimeters, average 12 centimeters. Wall thickness .5–1.0 centimeter, average .7 centimeter.

Decoration: Four out of five sherds have one or more pre-burnish horizontal grooves below rim on exterior. Most common decoration is zoned plastic treatment, including zoned shell-back, shell-edge, and dentate rocker-stamping, zoned burnishing, zoned cord-marking and zoned fabric-impressing. One sherd has vertical grooves outlining shallow vertical fluting.

OCÓS BLACK

Paste: fairly hard to very hard, most hard. Crystal ash temper. Color ranges from 7.5 YR 4/2 (Dark Brown) to 10.0 YR 6/3 (Pale Brown), although most are around 10.0 YR 4/2 (Dark Grayish Brown). Some have dark to black cores.

Surface: one or both surfaces slipped and burnished, according to shape of vessel. Areas left unslipped are usually unburnished also. On many sherds, especially those from Conchas phase vessels, a talclike inclusion in the slip produces what I will call the "fish-scale effect," consisting of minute milky-white platelets of the substance smeared across the surface by the burnishing.

Color: black.

Shapes:

Thin-walled neckless jars (fig. 22, *a–b, m*)

Form: globular to subglobular neckless jars, bases flat and unsupported.

Dimensions: inner rim diameters 8–10 centimeters, average 10 centimeters. Wall thickness .5–.9 centimeter, average .6 centimeter.

Surface: interiors always unslipped, unburnished; exteriors slipped, but burnished only in zones surrounding areas of plastic decoration.

Decoration: There is usually a burnished band below the rim on the exterior, outlined

by one or more pre-slip grooves. Bodies always have plastic decoration, including zoned burnishing, zoned plain, dentate, shell-edge or shell-back rocker-stamping, indented-line burnishing, cord-marking, textile-impressing, and simple shell-stamping. One vessel had 7 oval bulbous projections around the body, surrounded by unburnished areas into which red pigment had been rubbed.

Comparative material: Ulua Bichrome (*PM*), one sherd of a black-slipped neckless jar (Cat. 17–115), with zoned plain rocker-stamping. The rim profile of this vessel, however, more closely resembles those of Conchas phase neckless jars. *Uaxactún,* Mamom phase, black ware wide-mouthed necked jar (*RES*, fig. 14, *c*, *15*) with punctate zoning outlining areas which give effect of bulbous projections; this kind of zoning is more akin to Las Charcas and Playa de los Muertos. *Chiapa de Corzo* (Dixon n.d. 33), oval projections surrounded by incised lines on unslipped neckless jars from Pit 50 (Chiapa I).

Dishes, beveled rims (fig. 22, *p*)

Form: dishes with outflaring- or outslanting-straight sides; base slightly convex, presumably unsupported; rims somewhat beveled.

Dimensions: rim diameter 28 centimeters. Height approximately 8 centimeters. Wall thickness .9 centimeter.

Surface: slipped black and burnished on all surfaces.

Decoration: none.

Simple silhouette bowls (fig. 22, *n*)

Form: simple silhouette bowls with squared or rounded rims and presumably flat bases.

Dimensions: rim diameter (one example) 21 centimeters. Height unknown. Wall thickness .5 centimeters.

Surface: slipped and burnished on all surfaces.

Decoration: one example plain, but two or possibly three sherds of this shape show shell-back rocker-stamping which has been later partly obliterated by burnishing.

Simple silhouette bowls, beveled rims (fig. 23, *h*, *i*)

Form: bowls with beveled and sometimes slightly everted rims, base form unknown (but one example rounded), no supports.

Dimensions: rim diameters 24–32 centimeters. Reconstructed height of one bowl with 30-centimeter rim diameter is 8–10 centimeters. Wall thickness .7–1.2 centimeters, average .9 centimeter.

Surface: slipped and burnished on interiors and on rims, exteriors unslipped with two out of four roughly burnished.

Decoration: deep horizontal groove on rim bevel on two examples.

Simple silhouette bowls, labial ridge

Form: bowls with bases presumably flat and unsupported, rims thickened on exterior to form labial ridge.

Dimensions: inner rim diameter circa 26 centimeters. Wall thickness .7 centimeter.

Surface: slipped and burnished on interiors and over top of rims, exteriors unslipped and unburnished.

Decoration: labial ridge indented along apex. One example plain.

Plates, outflaring sides (fig. 22, *o*)

Form: shallow plate with outflaring sides, presumably flat and unsupported base.

Surface: interior burnished; whether slip used or not difficult to say. Exterior unslipped and unburnished.

Dimensions: rim diameter 34 centimeters. Height unknown. Wall thickness 1.1 centimeters.

Decoration: none.

OCÓS GRAY

Paste: medium hard to hard, most are hard. Crystal ash temper. Color 5.0 YR 5/4 (Reddish Brown) through 7.5 YR 4/2 (Dark Brown) to 10.0 YR 5.5/4 (Very Pale Brown). A few cores are dark.

Surface: one or both surfaces slipped and burnished, depending on shape of vessel. A few sherds may actually be unslipped and burnished, duplicating the appearance of the slipped examples.

Color: variable, includes a number of grays, from 7.5 YR 5/1 (Gray) through 10.0 YR 5/2 (Grayish Brown) to 5.0 YR 8/2 (Pinkish White) and even bluer grays which were not on my soil color charts.

Shapes:

Thin-walled neckless jars (fig. 23, *m–o*)

Form: neckless jars, globular to subglobular, with presumably flat and unsupported bases.

Dimensions: rim diameter (inner) 11 centimeters; maximum vessel diameter circa 22 centimeters. Wall thickness .7–1.1 centimeters, average .9 centimeter.

Surface: exteriors and a few interiors slipped and burnished. Others have unslipped and unburnished interiors.

Decoration: most have horizontal depressed band and groove below lip on exterior, although some rims plain. One sherd shows preslip roughening below this band and on the interior. One plain sherd covered with red pigment. Most common decoration is plastic, with zoned dentate, shell-edge, and shell-back rocker-stamping, zoned burnishing, line indenting, random stick-impressing, zoned cord-marking, and zoned fabric-impressing.

OCÓS IRIDESCENT

Paste: hard. Crystal ash temper. Color varies widely toward exteriors, 5.0 YR 4/4 (Reddish Brown) through 7.5 YR 5.5/4 (Light Brown) to 10.0 R 5/6 (Red). Cores are always dark.

Surface: one or both surfaces have iridescent slip, depending on vessel shape; slips were always burnished. Unslipped surfaces occasionally roughly burnished.

Color: non-reflecting 10.0 R 4/3 to 10.0 R 5.5/4 (both Weak Red). Reflecting, 5.0 R 8/4 to 7.5 R 8/4.

Shapes:

Thin-walled neckless jars (fig. 23, *p–q*, *t–u*)

Form: neckless jars with flat, unsupported bases. One has tablike projections (lugs?) on exterior.

Dimensions: inner rim diameters 14–30 centimeters, average 20 centimeters. Total diameter of vessel with 15-centimeter rim diameter is 21 centimeters. Wall thickness .6–1.2 centimeters, average .8 centimeter.

Surface: on five out of six sherds, exteriors are slipped and burnished, interiors are unslipped and unburnished; on one example, this is reversed.

Decoration: five out of six have single preslip horizontal groove below rim on exterior. One has shallow, spaced, vertical grooves on body exterior resembling a sort of incipient fluting. One sherd has zoned cord- or fabric-marking, done prior to slipping.

Simple silhouette bowls (fig. 23, *r*)

Form: bowls with flat, unsupported bases, rims have eccentric tablike projections on exterior.

Dimensions: rim diameter 20 centimeters. Height 10 centimeters. Wall thickness .9 centimeter.

Surface: interior, rim, and upper surfaces of rim tabs slipped; exterior unslipped, roughly burnished.

Decoration: none, other than eccentric rim tabs.

Special Decorative Techniques of the Ocós Phase (Tables 4–6)

Rocker-stamping (frequency of all kinds together varies in Ocós levels from 1 per cent to 7 per cent of sherd totals).

1. Shell-edge rocker-stamping (fig. 47, *a–y*). This is the most common type of rocker-stamping in Ocós. The crenulate edge of a pelecypod shell is "walked" back and forth across the surface; in the case of Victoria Coarse tripod neckless jars, the strokes are very close, completely roughening the surface, while on zoned vessels of other pottery types the strokes are wider apart. When zoned, the burnishing and grooving are usually but not always done after the stamping. There is also some variation in the length of the strokes and in their placement, that is, whether vertical or horizontal to the edge of the zone. Only three mollusk species with crinkly edges on the valves are known for Ocós: the ark shells *Anadara grandis* and *Anadara perlabiata* and the cardium shell *Anomalocardia subrugosa*. At the suggestion of Junius Bird, I experimented with these on plasticene, and one or all of them would have produced the desired impressions.

Comparative material: Shell-edge rocker-stamping has a somewhat restricted distribution in Middle America in the Formative, and seems to be confined to sites in Honduras. *Yarumela*, Archaic phase (Canby, Ph.D. thesis), very Ocós-like sherd with similar

zoned stamping. *Caingala* (Stone, 1957, fig. 39), also in the Comayagua Valley, zoned rocker-stamped sherd which apparently has been done with shell edge, associated with other Formative-looking material such as fragments of scored incensario covers and filleted neckless jars of Ulua Bichrome appearance.

2. Shell-back rocker-stamping (fig. 47, *z–k′*).

On some zoned sherds from neckless jars (a few examples appear to be from dishes or simple silhouette bowls), the rocker-stamping has been done with the exterior or back of a pelecypod valve belonging to one or more of the previously named species, the ribs producing an effect similar to dentate rocker-stamping, but with the impressions more elongate and pointed at both ends. Sometimes the ribs closer to the edge will be used, and sometimes the ribs higher up on the back; the latter produces more elongate "teeth" on the pottery. The stamping is usually done after slipping, and the zoned bands and bordering grooves may be burnished before or after stamping.

Comparative material: none known from Middle America.

3. Plain rocker-stamping (fig. 48, *a*).

The principle of rocking a tool back and forth over the vessel before firing so as to produce curved strokes in a continuous zigzag is the same here, but the edge of the tool is smooth; it could have been the curved edge of a bone, a piece of wood, or even the smooth edge of another species of shell. The strokes may be large and bold, or smaller, finer, and more closely spaced. Only one example of zoning is known, on a fragment of a hollow animal effigy (*lower right*). Besides this form, the technique appears on simple silhouette bowls, a few neckless jars, and what are possibly dishes with outflaring sides. It is not common, however.

Comparative material: Plain rocker-stamping is confined to a few Formative sites in Middle America, where it is rare and usually the only kind of rocker-stamping found. If zoned, the stamping tends to be done after zoning and carefully confines itself to the area bounded by the grooves (the Troyville type, as opposed to Hopewell-Marksville which is zoned after stamping). There is a late re-invention of rocker-stamping, both zoned plain and zoned dentate, in the Maya lowlands, especially in British Honduras (Thompson, 1931, pl. 48), in Late Classic times. *Chiapa de Corzo* (*NWAF* Coll.), a few large neckless jars have coarse plain rocker-stamping, and are found in Chiapa I and II. *La Venta* (Drucker, 1952, pl. 17), a handful of coarse sherds with lazy, unzoned, plain rocker-stamped impressions. *El Trapiche Mata Verde* (Porter, 1953, p. 48), zoned or paneled plain rocker-stamping on flat-bottomed dishes with outflaring sides. *Tlatilco* (Piña Chan, 1958, table 5), the only site in the highlands of either Mexico or Guatemala with any kind of rocker-stamping, has plain rocker-stamping on 13 out of 1,588 vessels, usually applied after zoning; these include effigies, necked and neckless jars, and dishes with outflaring sides. *Ulua Bichrome* (Strong, Kidder and Paul, 1938, pl. 9), zoned plain rocker-stamping on sherd from neckless jar, very Ocós-like in aspect. *Yarumela*, Archaic phase (Canby, Ph.D. thesis), zoned plain rocker-stamping on neckless jars. *Sulaco* (Stone, 1957), a site in central Honduras with what look like plain rocker-stamped sherds (Stone, 1957, fig. 67, *A*, *e*, and fig. 67, *B*, *d*), although not described as such.

4. Dentate rocker-stamping (fig. 48, *b*).

In this variety, well-known in North America and in Peru, the stamping is carried out with a specially prepared curved edge which had been cut or ground away to form spaced teeth, like a ratchet. The stamping edges of these teeth were somewhat coffin shaped in outline. As this tool is rocked back and forth over the surface, the strokes may be widely spaced or closer together; the effect in the latter may be so crowded that it is difficult to see that the surface was stamped. This type of stamping is usually post-slip, and zoned after stamping, except in the case of stamped open bowls which are never zoned; the most common shape so decorated is the neckless jar.

Comparative material: Dentate rocker-stamping is curiously absent in all other Formative sites in Middle America but one, although it is common in early periods in other New World areas. *El Trapiche Mata Verde* (Porter, 1953, p. 48), one zoned dentate rocker-stamped sherd is known from this Formative site.

Table 15. Cord-marked and Fabric-impressed Sherds.

1. Percentage breakdown of cord-marked and fabric-impressed sherds by ceramic types

Victoria Coarse	8 %
Ocós Red Burnished	1
Ocós Specular Red	3
Ocós Buff	32
Ocós Brown Burnished	3
Ocós Black	23
Ocós Gray	28
Ocós Iridescent	2
	100 %

2. Percentage breakdown of cord-marked and fabric-impressed sherds by vessel shape

Thin-walled neckless jars	93 %
Form unknown, but not neckless jars	7
	100 %

3. Relative proportion of surely identifiable techniques among pooled cord-marked and fabric-impressed sherds

Cord-marking	75 %
Fabric-impressed	25
	100 %

4. Spin and doubling of cords on cord-marked sherds

S-spun, Z-doubled	79 %
Z-spun, S-doubled	21
	100 %

Cord-marking (fig. 49, *g–c′;* table 15)

It is difficult to discriminate at all times between multiple cord-marked impressions and actual fabric-marking, so that one cannot discuss Ocós textiles with complete confidence. There is, on the other hand, clear-cut evidence of the use of cords to produce roughened areas on the exterior of many vessels. Most cord-marked sherds show that a paddle of some sort was carefully wrapped with a cord, usually S-spun and Z-doubled (although Z-spun, S-doubled cords occur); the vessel was then carefully impressed with the closely spaced cords, *after* slipping but before burnishing. Then, on all slipped examples, the surface was finely burnished in curvilinear zones bordered by shallow grooves, leaving cord-marked zones in the unburnished areas. On some sherds, the cord-impressed areas were subsequently covered by a number of parallel line-indented grooves, a technique occasionally combined with zoning. The cords themselves, at least on slipped vessels, were often extremely fine, but much coarser and apparently unzoned on Victoria Coarse neckless jars. When, as sometimes happened, successive strokes of the paddle overlapped, the illusion of woven fabrics becomes a danger, particularly when the cord impressions lie at right angles to each other. A few sherds (fig. 49, *g*) seem to have been impressed with cords loosely wrapped kite-fashion around a stick or actually with a ball of string rolled across the surface of the clay. The type of zoned marking shown in figures 49, *z* and 50, *m* is quite puzzling; apparently a stick or paddle, wrapped with a coarse, loosely spun cord, was rocker-stamped over the surface. This is a technique demonstrated by Holmes (1903, pp. 73–75) experimentally. With few exceptions, the vessels decorated with cord-marking are thin-walled neckless jars; a few sherds are from unidentifiable forms, and one arm fragment from a figurine is so treated. The usually coarse and unzoned impressions in Victoria Coarse presumably belong to tripod neckless jars. All ceramic types of the Ocós phase are represented, although most are Ocós Gray, Ocós Black, and Ocós Buff.

Comparative material: Cord-marking has long been sought in Middle America, but never found on an early level, with the possible exception of Copilco. In the museum at that site, there is a composite silhouette bowl, presumably of Copilco date (this shape is, however, more typical of Early Zacatenco), with cord-wrapped paddling on the underside of the base (information from Paul Tolstoy). In very late times, a rare cord-marked type, perhaps Aztec in date, is found in the Valley of Mexico (Tolstoy, 1958, fig. 7, *m*). On this the cord impressions have been made separately without paddling, the total effect closely resembling the single cord-impressed pottery from the Pendleton site of the Chihuahua culture (Kidder, Cosgrove, and Cosgrove 1949, p. 145). No other cord-marking is yet known for the area.

Fabric-marking (fig. 49, *a–f*)

This technique is rarer than cord-marking, but is handled in the same way on the same class of pottery. That is, the surface was care-

fully roughened by impressing a textile (this could have been done directly or with a cloth-wrapped paddle) on the damp surface, then later burnished in zones which were outlined by shallow grooves. Plain weaves are present and perhaps twill; the textiles used were extremely fine, with very high yarn counts. In ambiguous examples, if they were actually fabric-marked, then the cloth was old, worn, and badly stretched. Most impressions were made after slipping, on thin-walled neckless jars, but one very coarse fabric appears to have been impressed on a Victoria Coarse vessel of undetermined form.

Comparative material: Again, like cord-marking, this form of decoration is so rare in Formative Middle America as to be almost non-existent. *Pavon site* (MacNeish, 1954, fig. 15, no. 2), a coarse fabric impression on top of the lip of a heavy buff sherd assignable to the Aguilar phase; (Ekholm, 1944, fig. 4, 1), a very Ocós-looking sherd from a neckless jar, apparently zoned-impressed with a very fine fabric, Pánuco I (Chila phase). *San Fernando* (Tabasco), textile-impressed sherds collected by R. Piña Chan and C. Navarrete in Formative site related to Tres Zapotes (information from C. Navarrete).

Simple shell-stamping (fig. 48, *c*)

The employment of the crenulate edge of a shell to produce simple impressions which are separate and not rocked is found on only a handful of Ocós sherds. They are believed to be fragments of small neckless jars, some of them Ocós Black and with white pigment filling the impressions to bring out the design. No zoned examples are known.

Comparative material: Chukumuk (Lothrop, 1933, fig. 27, *b*) a "cream ware" sherd with zoned simple shell-stamping; zones rectangular. *Las Vegas* (Stone, 1957, fig. 45, *c*), zoned simple shell-stamping on one sherd identified as probably "Sula-Jicaque," but perhaps Formative.

Drag-and-jab

To produce this effect, a pointed or slightly blunt tool is dragged over the damp surface and, at the same time, jabbed into the clay at equal intervals. When many of these drag-and-jab lines lie close together and parallel to each other, it becomes a problem to distinguish the impressions from close dentate rocker-stamping. In other cases, the effect of dentate rouletting is given, but the lines of jabs are not straight enough.

Pinching (fig. 48, *d*)

I am including under this rubric the variety of gouging techniques and other modes of decoration done with the thumb identified as "pinching" in the literature of the archæology of the eastern United States. The effect was produced by pushing the wet, coarse clay surface to one side at intervals. Pinching is found on the exterior of Ocós Buff neckless jars with heavier walls than usual (possibly Conchas 1 and not Ocós); in zones on an Ocós Brown Burnished vessel, perhaps a bowl with incurved rim; and on the exterior of an Ocós Specular Red dish with outflaring sides, of which only the interior is slipped.

Comparative material: La Venta (Drucker, 1952, pl. 21, *d*, *f*), pinching found on Coarse Buff sherds.

Net- or knot-roughening (fig. 48, *f*)

Two sherds from Victoria Coarse vessels, possibly tripod neckless jars, have surface manipulation identified by Dr. Clifford Evans as roughening produced by bunching up knots or a net in the hand and rubbing them over the damp clay.

Finger drag (fig. 48, *e*)

Dr. Evans has suggested the above term for a species of plastic decoration found on four sherds from Victoria Coarse vessels (tripod neckless jars?). On the exterior of these, while the surfaces were wet, the fingers were dragged down and long, vertical, interrupted ridges of clay left by the spaces between the fingers, giving an appearance of appliqué.

Fingernail punctation (fig. 48, *g*)

The exteriors of two sherds from Ocós Black thin-walled seed jars and one sherd from an Ocós Buff vessel of the same form have been decorated by numerous half-moon impressions made by repeatedly applying the ends of the fingernails to the damp clay. This technique is also found in Conchas (see comparative material under that heading).

Random stick impression

The exterior of an Ocós Gray thin-walled seed jar was decorated with deep punctations made by jabbing the end of a stick or several sticks into the damp surface, which was later zoned in the usual fashion.

Zoned burnishing (fig. 50, *b, g, h;* 12–26 per cent of all sherds in Ocós levels)

Highly burnished zones are a feature of all zoned Ocós pottery, but occasionally the background would simply be left in its naturally matte condition after slipping, and burnished in the usual curvilinear zones. The technique is restricted to thin-walled neckless jars, and is most common in Ocós Black; with this ware, red pigment is usually rubbed into the matte areas to increase the contrast. Other types with zoned burnishing are Ocós Buff, Ocós Brown Burnished, Ocós Specular Red, and Ocós Gray.

Indented-line burnishing (fig. 50, *a, c–f, i, j*)

Sometimes by themselves and sometimes in company with zoning occur burnished lines across matte or roughened surfaces; these are made under pressure, the tool causing a deeply indented line like a groove. Furthermore, indented lines of this nature always surround zones and are the last part of such decoration in the zoning process.

Iridescent painting (fig. 50, *k–l;* frequency varies in Ocós levels from 1 per cent to 11 per cent, usually about 8 per cent)

While some vessels have an all-over application of iridescent paint or slip and are therefore described as a separate type, Ocós Iridescent, the same kind of paint may be used as a decorative feature on other types. As previously described, when the light strikes the paint in a certain way, the intensity of the light reflected is greatly increased, resembling the effect of opalescence or the nacreous quality of a pearl. The reflection is not, however, prismatic unless applied in a very thin solution and the sherd subsequently burned in a hearth or midden fire. The color generally is quite pink (non-reflecting 10.0 R 5/4; reflecting 5.0 R 8/4). Robert Sonin informs me that the paint may be experimentally produced by developing a colloidal solution of clay particles which after firing reflect the light in the same way as the minute glass beads on a movie screen. The iridescent paint fired by him in his own kiln for Dr. Clifford Evans and Dr. Betty Meggers lacks the intensity of reflection of Ocós examples. This paint was applied in a band on the rims of Victoria Coarse tripod neckless jars; in stripes, either parallel diagonal or in crisscrosses on the interiors of Ocós Buff and Ocós Specular Red dishes; and in curvilinear zones on Ocós Specular Red thin-walled seed jars. It was never used on any other Ocós types, such as Ocós Black, Ocós Gray, or Ocós Brown Burnished.

Comparative material: Mirador is so far the only other site in Middle America with such painting, found on the rims of neckless jars from the earliest phase there. Mirador I (information from C. Navarrete); this phase is closely allied with Chiapa I and Ocós.

THE CONCHAS PHASE

General Characteristics

The ceramics of the Conchas phase are strikingly different from those of Ocós, although it must be recognized that many continuities are present, especially in vessel shapes. Among the distinguishing features of Conchas are the greater thickness and heaviness of the pottery, a general impression of mass production (opposed to the individuality and experimentation of Ocós pottery), and the virtual absence of specialized techniques of zoned surface alteration, such as cord-marking and rocker-stamping. Conchas ceramics seem even harder than those of Ocós, if possible, and one wonders how the people of this phase ever managed to break some of their vessels into so many small pieces.

As indicated on the chart, some Ocós pottery types die out by this phase, which is itself marked by the appearance of newer types. Ocós Specular Red and Ocós Iridescent appear not to have been manufactured in Conchas times, with only a small percentage of sherds showing up as redeposition. The same might

be said for Ocós Buff and Ocós Brown Burnished. Ocós Black continues to be produced, with some new shapes being added to those already present. The highest frequencies for this type are actually at the beginning of Conchas, in the Conchas 1 subphase. Victoria Coarse is greatly reduced in its relative frequency, and appears in a few new shapes; most of the sherds in Conchas levels of this type were probably redeposited from Ocós. Another type which continues is Ocós Gray.

The hallmarks of the Conchas phase are two new types, Conchas White-to-buff and Conchas Red Unburnished. These two account for the bulk of Conchas sherds, and give the collections from this phase a totally different cast from those of Ocós, which emphasized coarse and deep red sherds. Conchas Red Unburnished is the dray horse of Conchas, the heavy neckless jar in this type being the common utilitarian vessel of the phase. It is apparent from the charts that Conchas White-to-buff appears just slightly earlier in the sequence than does Conchas Red Unburnished. Four new bichrome types also are characteristic of the phase: Conchas Red-and-white, Conchas Red-on-buff, Conchas Fine White-to-buff, and Conchas Fine Red-on-cream. The last two named are rare, and are distinguished by the fineness of the paste and the small size of the vessels. Other rare types are Conchas Streaky Brown-black, Conchas Brown Unburnished, and what seems to be an actual import, Río Blanco Orange. Conchas Orange is a fairly important type which appears in the Conchas 2 subphase, but has its greatest relative frequency in the subsequent Crucero phase.

A very common vessel shape, the neckless jar, has been carried over from the Ocós phase, although in Conchas it is much heavier and larger, has a rim which has been thickened on the interior, and is generally undecorated. The heavy neckless jar is found most frequently in Conchas Red Unburnished, although some vessels were made in Victoria Coarse, Conchas Brown Unburnished, Conchas Red-and-white, or Ocós Black. It is always unsupported and had a flattened base; no handles are present, but some Conchas Red Unburnished examples had lugs on the side. Necked jars are found for the first time, generally in Conchas Red Unburnished, although the same shape is represented in all other monochrome types. The flat-bottomed dish with outflaring sides is the next most important Conchas shape after the heavy neckless jar, and is most frequently found in Conchas White-to-buff and in Ocós Black. On dishes of this type, the decoration is confined to incising and excising and almost always includes, just below the rim interior, double incised lines, one of which has been interrupted, with the ends of the line at the break turned upward. I shall henceforth call this motif, a characteristic of Conchas, the "double-line-break." Another common Conchas shape is the flat-bottomed bowl with a beveled rim which may be "eccentric." A very distinctive Conchas innovation is the Conchas White-to-buff grater bowl: a composite silhouette vessel supported by three tripod feet, the interior of which has been scored and used as a grater. The supports on this vessel are the only ones known for the phase. There is excellent reason to consider the tripod grater bowl an introduction from an outside area. Unsupported composite silhouette bowls, generally in Ocós Black, also represent a departure from the shapes of the earlier Ocós phase. Simple silhouette bowls, however, are found in both phases. The cuspidor, a generally rare shape, and the dish with wide, everted, and usually grooved rim (almost entirely confined to Conchas Orange) are two further non-Ocós features.

Decorative techniques other than bichroming are extremely rare. Post-slip, pre-firing incision is the most common, the incision generally being restricted to horizontal lines or "double-line-break" motifs which encircle the vessel at various latitudes. Excision, or scraping away of the slip prior to firing, is also encountered in association with simple incision on the exterior walls of Ocós Black dishes with flaring sides. Pre-slip grooving occurs on the rims of some vessels. A rare but archæologically important decorative technique, found only on Conchas White-to-buff, is negative painting, resulting in light areas of oxidized slip surrounded by darker areas which have been reduced or smoked. Punctation and fingernail impression are also rare but of less interest to the comparative study of Formative sequences in Nuclear America. A technique infrequently found is broad-line burnishing (called in some

reports "pattern burnishing" or "stick burnishing"), usually restricted to Conchas Brown Unburnished heavy neckless jars or Ocós Black dishes with flaring sides. Totally absent, as far as can be determined, are iridescent painting, zoned burnishing, rocker-stamping, cord-marking, and textile-impressing. The latter, of course, means the purposeful use of woven fabrics to alter the surface of the vessel. There are a few Conchas sherds with twined basketry or matting impressions which were accidentally left on vessels during the manufacturing process.

The distinction between the subphases Conchas 1 and Conchas 2 has been made on the basis of the characteristics which follow. Outstanding is the already mentioned absence of Victoria Orange (and its most frequent shape, the everted-and-grooved-rim dish) from Conchas 1. Also not appearing until Conchas 2 are Conchas Streaky Brown-black, Conchas Fine White-to-buff, and Conchas Fine Red-on-cream. An important feature of Conchas 1 is the Ocós Black dish with flaring sides, the exterior of which has zoned excised areas of rectilinear outline, with red pigment often rubbed into the roughened surfaces. Heavy neckless jars in Victoria Coarse and Conchas Brown Unburnished are restricted to Conchas 1, as is the use of broad-line burnishing and striation. There is a pronounced difference in the shape of the rim between Conchas 1 and Conchas 2 tripod grater bowls, and some distinction can be made according to subphases among the scored designs on the bottoms of these vessels. None of these differences is important enough to warrant the creation of separate phases here, and, furthermore, a majority of types, shapes, and decorative techniques are shared by both Conchas 1 and 2. Conchas 1 has every appearance of being a short subphase marking the influx into the La Victoria area of new ceramic traits, while Conchas 2 is a very long subphase which carries on many Conchas 1 traits but adds some new variations and types to them. In the pottery descriptions which are given in a subsequent section, each type, or shape within that type, will be assigned to a particular Conchas subphase.

As with the ceramics of the Ocós phase, those of the Conchas phase could also be described in terms of what is absent. Other than those Ocós features which do not occur in Conchas, a list of traits which are found in Formative phases elsewhere in Middle America but non-existent in this phase would include handles, spouts, annular bases (except in stools), ring bases, flanges of any sort, lids (other than a small fragment of an incensario lid), mammiform feet, and bottles. So-called "pot rests" are not found, but pottery stools are known for Conchas. A careful look at certain illustrations of "pot rests" from other areas makes it a certainty that some of them must also be seats. The use of more than two slip colors or paints on a vessel is also absent from Conchas. Incensarios or parts thereof are so rare as to almost constitute a negative trait.

In summary, Conchas looks much more like a "typical" Formative should look than does Ocós. Ceramically, this phase is unimaginative and inclined toward over-standardization, and yet shows a high technical competence (the marvelous condition of Conchas sherds after more than two thousand years in a wet tropical soil is a testimony to this). The enormous quantity of Conchas sherds excavated indicates that such standardization resulted in a greatly increased ceramic production. In comparison, the Ocós output seems to have been negligible, disregarding the archæological and esthetic interest of the latter. If sheer mass alone is the criterion, the Conchas phase represents far and away the most important occupation of La Victoria.

Ceramic Types of the Conchas Phase

VICTORIA COARSE

Shapes:

Heavy neckless jars (Conchas 1 and 2; fig. 52, *a–d, g–i*)

Form: large neckless jars, globular or subglobular in shape, bases presumably flat and unsupported.

Dimensions: inner rim diameters 15–18 centimeters, average 17 centimeters. Wall thickness .8–1.2 centimeters, average 1.0 centimeter.

Surface: unslipped, unburnished. Exterior smoothed, apparently when dry. Most are striated with a multiple-toothed instrument which must have resembled a comb, starting

about 1.5 centimeters below the rim on the exterior.

Decoration: none, other than striation.

Comparative material: Chiapa de Corzo, heavy neckless jars in coarse ware, identical in form, with both striated and plain exteriors, in Chiapa I (*NWAF* Coll.). *Kaminaljuyu* (*NMAE* Coll.), from Mound C–III–10, Lots C–100 and C–100a; coarse heavy neckless jars with exterior striation and what looks like deep fingernail punctation, possibly Las Charcas or Arévalo phase.

Simple silhouette bowls (Conchas 2; fig. 24, *a*)

Form: open bowls or bowls with somewhat incurving sides, rims plain rounded or squared, bases presumably flat and unsupported.

Dimensions: rim diameters 22–28 centimeters, average 25 centimeters. Wall thickness .5–1.0 centimeter, average .8 centimeter.

Surface: most are crude and lumpy in appearance.

Decoration: none.

CONCHAS RED UNBURNISHED

Paste: hard. Crystal ash temper, occasionally with coarse inclusions like pumice. Two color ranges, one centering around 2.5 YR 4/6 (Red), other around 7.5 YR 4/3 (Dark Brown); the former is more friable than the latter. A few thin sherds may be 5.0 YR 6/5. There are some dark cores in the Dark Brown range pastes.

Surface: exteriors coated with a slip of thick paint with a brush which has left faintly visible markings, unburnished. Interiors unslipped and unburnished.

Color: most are 2.5 YR 5/5–4.5/5 (Red), although total range extends from 2.5 YR 4/5 (Red) to 5.0 YR 6/5 (Reddish Yellow). When burned, they are much darker and browner.

Shapes:

Heavy neckless jars (Conchas 1 and 2; fig. 24, *g*, *i–k*)

Form: large neckless storage jars, globular or slightly subglobular, with flat bases and no supports. A very small percentage of bases may be slightly convex. Rims are thickened, usually rounded in section, although some are indented from above to form a depressed lip. A few fragmentary lug handles (fig. 24, *f*) probably belong to this form.

Dimensions: inner rim diameters 17–22 centimeters, average 20 centimeters. Estimated body diameters 45–65 centimeters, probably about 50 centimeters, commonest. Height unknown, but presumably not far from estimated body diameters. Maximum rim thickness 1.1–1.9 centimeters, average 1.5 centimeters. Wall thickness .6–1.1 centimeters, average .8 centimeter. Base diameters 18–20 centimeters. One unusually small example has a rim diameter of 14 centimeters, wall thickness .5 centimeter, body diameter 20 centimeters. One unusually large sherd has a maximum rim thickness of 3.1 centimeters, and a wall thickness of 1.8 centimeters.

Surface: two Conchas 1 sherds are striated, one Conchas 2 sherd has rudimentary burnishing. On some vessels, the red slip shows a slight lustrous quality resulting from the firing qualities of the slip itself.

Decoration: two examples show vertical or horizontal broad-line burnishing. Occasional Conchas Red Unburnished sherds with indented filleting (fig. 53, *d–i*) could belong to this form or to necked jars of the type.

Comparative material: Kaminaljuyu, Mound C–III–10, Lots 100 and 100a (*MNAE* Coll.) have similar neckless jars in unburnished red, some being decorated below the rim on the exterior with punctations and therefore very similar to neckless jars of Chiapa I. *La Venta* (Drucker, 1952, pls. 21 and 153) has lug handles on vessels.

Necked jars (Conchas 1 and 2; fig. 24, *c–e*)

Form: globular to subglobular storage jars with low flaring necks, presumably flat or somewhat concave bases.

Dimensions: rim diameters 20–22 centimeters, average 21 centimeters. Wall thickness .7–1.0 centimeter, average .9 centimeter. Body diameters probably between 40 and 60 centimeters. Height unknown.

Surface: slips sometimes slightly lustrous.

Decoration: possibly indented filleting on body.

Comparative material: Chiapa de Corzo (*NWAF* Coll.) similar ware and form with same low necks in Chiapa III.

Small jars, everted rims (Conchas 2 and possibly Crucero; fig. 24, *b*)

Form: small, very thin-walled jars with constricted orifices, everted rims, flask-shaped bodies, bases flat and unsupported.

Dimensions: rim diameters 8–12 centimeters, average 10 centimeters. Wall thickness .2–.5 centimeter, average .3 centimeter. Height probably around 9–12 centimeters.

Surface: very coarsely finished, unsmoothed, perhaps only wiped when wet. Exteriors appear to have only a very thin slip or a wash of red.

Decoration: none.

Comment: Future investigators may be justified in creating a separate type from this kind of vessel. At any rate, it constitutes a rather distinct variety within Conchas Red Unburnished, recognizable by its thinness and hardness.

Incensario lid (Conchas 1 or early 2; fig. 53, *c*)

Form: fragment of a lid of simple silhouette shape.

Dimensions: .6–.8 centimeter thick, other dimensions unknown.

Surface: exterior (upper surface) covered with wash or light slip of red color, unburnished. Interior deeply scored when wet, unslipped and unburnished.

Decoration: other than scoring, none.

Comment: This is undoubtedly part of a lid which sat on three-pronged incensario. The interior is smoke or fire-blackened, and the scoring duplicates well-known examples from the Las Charcas and Sacatepéquez phases in the Guatemalan highlands and in Formative contexts in Honduras (*see* Borhegyi, 1951).

CONCHAS BROWN UNBURNISHED

Paste: fairly hard; medium coarse; crystal ash temper. Color 7.5 YR 4/3 (Dark Brown).

Surface: There is a possibility that this type is actually unslipped. Occasionally very cursory burnishing is present on the exterior, suggesting even a line-burnished effect.

Color: 5.0 YR 4/2 (Dark Reddish Gray).

Shapes:

Heavy neckless jars (fig. 24, *b*)

Form: globular or subglobular neckless jars, rims somewhat thickened toward lips, bases presumably flat and unsupported.

Dimensions: inner rim diameter 18 centimeters. Body diameter (estimated) 45 centimeters. Wall thickness .7–1.0 centimeter, average .8 centimeter.

Decoration: other than the possible line burnishing, none.

CONCHAS WHITE-TO-BUFF

Paste: hard to very hard. Crystal ash temper. There are two ranges of paste colors, a heavily tempered gray paste which sometimes has a buff core of 10.0 YR 7/5 (Yellow) color, and a buff or brown paste, 7.5 YR 4.5/3 (Brown), which may have a gray core.

Surface: usually covered with a thick slip on all surfaces except the underside of bases; all slips burnished. Some vessel shapes are slipped and burnished on only one surface. The slips markedly show the streaky "fish-scale" effect which may come from talc inclusions, and when thickly applied are often crackly. Black firing clouds are a common feature.

Color: The extreme range of firing variations produces a series from relatively pure white through 7.5 YR 7.5/4 (Pink) to 2.5 YR 6/8 (Light Red) and to 7.5 YR 7.5/2 (Pinkish White). On whiter sherds, orange or rust-colored streaks are occasionally found, some so regular that they seem to have been intentionally produced. Negative treatment will be discussed later.

Comment: This type has qualities which suggest a close relationship to Ocós Black on the one hand and to Ocós Gray on the other; by Conchas 2 times, some sort of kinship with Conchas Orange is also suggested. The slip is exactly the same as that used for the white areas of Conchas Red-and-white.

Comparative material: White monochrome ceramics have a wide distribution in the Formative of Middle America, from the Valley of Mexico to Honduras. Sites or phases in which they are predominant or very close to being predominant are found on the Gulf Coast, in the Grijalva Basin of Chiapas, and on the Pacific coastal plain from the Isthmus of Tehuantepec to La Victoria. Conchas White-to-buff seems very close to the white pottery of Chiapa II (in shape and decoration they are almost identical), and of certain Formative

sites like Mazatán in Chiapas, investigated by R. Piña Chan. In quality, however, no other pottery is so similar to this type as the white monochrome of El Trapiche Mata Verde in Vera Cruz, sherds from which are in the *NMAE* collections (Lot F–21). This similarity includes color, hardness, the crackly surface, and the peculiar rust-colored streaks. The temporal position of phases in which these white ceramics are dominant would seem to be in the Middle Formative proposed by Piña Chan (1956), although not necessarily with some of the phases suggested by him as belonging to that period.

SHAPES:

Small neckless jars (Conchas 1 and 2; fig. 25, *a;* fig. 27, *a*)

Form: neckless jars with plain rims, bases presumably flat and unsupported. Much smaller than heavy neckless jars of other types.

Dimensions: difficult to estimate, as sherds very fragmentary. Inner rim diameters 4–16 centimeters, average 11 centimeters. Wall thickness .5–.9 centimeter, average .7 centimeter. Estimated body diameters 12 centimeters for one small vessel, 28–30 centimeters for larger.

Surface: slipped and burnished on exterior and interior.

Decoration: usually a single post-burnish, pre-firing horizontal incised line below rim on exterior. Some have pre-slip horizontal groove below rim on exterior, often below a slight exterior thickening of the wall. One example has multiple grooving.

Necked jars (Conchas 1 and 2; fig. 27, *m–p*)

Form: subglobular jars with presumably flat bases, with wide and somewhat short necks which are insloping to vertical to slightly flaring.

Dimensions: rim diameters 21–29 centimeters, average 24 centimeters. Neck height 1.0–6.2 centimeters, average 3.3 centimeters. Body thickness .5–1.2 centimeters, average 1.0 centimeter.

Surface: slipped and burnished on all surfaces.

Decoration: Most have post-burnish, pre-firing parallel incised lines on neck, one placed just below rim, other at break with body. One neck has rectilinear design in incised lines (fig. 27, *n*). One body (from what may be a Conchas 1 vessel) has what seems to be pre-slip grooved circles.

Comparative material: Mazatán, Chiapas (*INAH* Coll.), sherds collected by R. Piña Chan in 1958 are of identical form and decoration and seemingly of same Conchas White-to-buff pottery type (they are, however, unslipped on the interiors below the rim but are burnished on that surface; the white slips also lack the "fish-scale" effect).

Barrel-shaped jars (Conchas 1 and 2; fig. 27, *d, f, g*)

Form: deep vessels with flat, unsupported bases, walls moderately convex. This shape group overlaps with deep bowls and small neckless jars.

Dimensions: outer rim diameters 8–16 centimeters, average 10 centimeters. Wall thickness .6–.8 centimeter, average .7 centimeter. One basal sherd has a 16-centimeter diameter.

Surface: slipped and burnished on all surfaces.

Decoration: often one or more post-burnish horizontal incised lines below rim on exterior. One sherd has double-line-break incision. Another vessel (fig. 27, *g*) was apparently decorated with naturalistic human form in incision on exterior.

Dishes, outflaring sides (Conchas 1 and 2; fig. 25, *b–d;* fig. 26, *a*)

Form: dishes with flat, unsupported bases, sides outslanting to strongly outflaring, rims gently rounded to squarish in section.

Dimensions: rim diameters 14–46 centimeters, average 30 centimeters. Base diameters 11–36 centimeters, average 22 centimeters. Height 3.8–7.1 centimeters, average 5.6 centimeters. Wall thickness .8–1.3 centimeters, average 1.1 centimeters.

Surface: slipped on interiors and sides, but not on bases. Interiors always, exteriors usually, highly burnished, bases lightly burnished.

Decoration: almost always post-burnishing, pre-firing incising. Most common is the use of a single incised line below rim on exterior and another just above the base on the exterior. Also frequent are dishes with double-line-break motif encircling the vessel just below the rim

on the interior; most of these are Conchas 1. A breakdown of such incising follows:

	Per Cent
Decoration near rims:	
Double-line-break inside, no lines outside (largely Conchas 1)	26
Double-line-break inside, one line outside	3
Single line inside, none outside	6
Single line inside, single line outside (Conchas 2)	11
Single line outside, none inside (Conchas 1 and 2)	42
No incising at all	12
Decoration on exterior near base:	
Single line (Conchas 1 and early 2)	67
No line (Conchas 1 and 2)	33

Many decorated sherds have red pigment rubbed into the incising. Another decorative technique, found on 6 per cent of all Conchas White-to-buff vessels of this form, is negative painting (fig. 26, *a*), described in a later section.

Comparative material: Chiapa de Corzo (*NWAF* Coll.), monochrome white dishes of identical shape and decoration (but lacking negative) are typical of and restricted to Chiapa II; these show double-line-break incising below rim interiors, but exteriors are usually unslipped and unburnished. Most Chiapa II sherds of this form are softer than Conchas White-to-buff and have some calcite in the temper. From Pit 38 stratitest in a Chiapa II context is a dish with flaring sides (*NWAF* Cat. #357), covered with red pigment. *Uaxactún* (*RES*, fig. 4, *a*, *MNAH* Coll.), Mamom phase, same form in red ware and orange ware, with "groove-incising" in the "double-line-break" motif on the lip. *La Venta* (Drucker, 1952, fig. 38), same form with generally one to three post-slip incised horizontal lines on interior below rim. *Tizatlan*, Tlaxcala (Piña Chan Coll. in *INAH*), same form in ware which resembles Chiapa II white monochrome, single incised line below rim interior, curvilinear incised design below.

Comment: This form in Conchas White-to-buff and the heavy neckless jar in Conchas Red Unburnished are the markers of the Conchas phase.

Simple silhouette bowls (fig. 27, *h–i*, *k*)

Form: fairly shallow open bowls with flat, unsupported bases and plain rims.

Dimensions: rim diameters 26–37 centimeters, average 33 centimeters. Wall thickness .8–1.1 centimeters, average .9 centimeter. Height unknown.

Surface: slipped and burnished on all surfaces.

Decoration: some plain; others usually have only one horizontal, post-burnish incised line on interior below rim. One vessel had bold, curvilinear incised designs on interior, and another had plastic decoration combined with incision (indicating a face?) on exterior (fig. 27, *i*).

Comparative material: Mazatán, Chiapas (Piña Chan Coll. in *INAH*), one sherd of same form and decoration in hard, white monochrome ware, but with an unslipped and burnished interior. *Chalcatzingo*, Morelos (*INAH* Coll.), one orange monochrome sherd of same form with double or triple incised line below rim interior, unslipped on exterior. *Middle Zacatenco* (Vaillant, 1930, pl. VI), various white monochrome bowls including some of simple silhouette shape. *Playa de los Muertos* (*PM* Coll.), white monochrome on buff paste vessels, simple silhouette shape, with single indented horizontal groove below rim exterior.

Bowls, beveled rims (Conchas 2; fig. 26, *b*)

Form: convex-sided bowls with beveled and often eccentric rims, bases presumably flat and unsupported.

Dimensions: inner rim diameters 20–23 centimeters. Diameters calculated from the outer edges add about 3 centimeters more. Height unknown, but probably 5–7 centimeters. Wall thickness .6–.8 centimeter.

Surface: usually only rim bevels and interiors of bowls slipped and burnished, although a few exteriors are also slipped and burnished.

Decoration: rims often have eccentric exterior tabs. Rim bevels have either pre-slip grooving or post-burnish incising. One vessel has deep post-burnish incising on exterior.

Comparative material: Chiapa de Corzo (*NWAF* Coll.), same form in white monochrome, including eccentric rims, in Chiapa II deposits. *Early Zacatenco* (Vaillant, 1930, pl. II, *e*, *f*), white ware bowls with eccentric, double-grooved beveled rims, almost identical to Conchas examples. *Tizatlan*, Tlaxcala (Piña Chan Coll. in *INAH*), white monochrome

bowls with somewhat incurved sides, beveled rims, one or two pre-slip grooved lines on bevel, but rims not eccentric. *La Venta* (Drucker, 1952, fig. 38), bowls or dishes with beveled rims (ware unknown), often with post-slip incising on bevel.

Composite silhouette bowls (Conchas 1 and 2; fig. 27, *j, l*)

Form: bowls of usually small size, bases usually rounded although some may be flattened, concave and often flaring sides. Larger vessels have a well-defined basal ridge. One vessel has horizontal fluting on the exterior of the sides, as in Ocós Black composite silhouette bowls.

Dimensions: two series observed, one small, one large. Smaller—rim diameters 10–18 centimeters, average 14 centimeters. Wall thickness .8–1.2 centimeters, average .9 centimeters. Height 3.5 centimeters. Larger—rim diameter 28 centimeters. Height about 10 centimeters. Wall thickness .9 centimeter.

Surface: with one exception (which is slipped only on the interior but burnished on all surfaces), all are slipped or burnished on all surfaces.

Decoration: some are plain, but some have two horizontal, post-burnish incised lines on exterior, one below rim, other above break. The only whole vessel from La Victoria, a small bowl from Pit 1 (fig. 27, *j*) with a base which is just slightly convex, can perhaps be classified under this form; it was coated after firing with red pigment.

Tripod grater bowls, rounded rim bolsters (Conchas 1; figs. 26, *i–k;* 52, *p–s*)

Form: composite silhouette bowls with somewhat convex bottoms and conical tripod supports which are mostly solid. Rims are thickened on the exterior into roundish bolsters. One bowl had hollow feet with two vent slits.

Dimensions: almost complete grater—rim diameter 20.3 centimeters. Total height 8.2 centimeters. Length of foot (median) 2.3 centimeters. Wall thickness .7 centimeter. Base thickness from .9 centimeter at edge to .7 centimeter in middle. Other rim diameter 26 centimeters. Other foot lengths 4.7 and 4.9 centimeters.

Paste: black cores usually present.

Surface: slipped on all surfaces; feet usually unslipped and always unburnished, but sometimes a wash was applied. Other surfaces burnished with exception of interior bottoms, which were never burnished. The slips seem extra-hard, and often show black firing clouds; they are usually whiter than those on Conchas 2 tripod grater bowls with flattened rim bolsters.

Decoration: All interior bottoms have post-slip scoring which perhaps should not be called "decoration" as it seems to have been a means of providing a grating surface (fig. 52, *p–s*). This scoring is arranged in symmetrical designs, the most common of which on these Conchas 1 grater bowls is a "sunburst" pattern or what MacNeish (1954, fig. 12) has termed the "Hub-and-Spoke" pattern, a kind of multi-pointed figure with zoned areas filled with radiating lines and combined with dotted areas. MacNeish's "Opposed Areas of Parallel Lines" is also found, as is crosshatching in unknown designs. Some bottoms were scored with a comb which contained 5 to 6 teeth; a comb was used in one case to produce a punctate pattern and in another to produce a short linear-punctate effect, both in a "Hub-and-Spoke" design.

Comparative material: see below, under Conchas 2 tripod grater bowls.

Tripod grater bowls, flattened rim bolsters (Conchas 2; figs. 26, *f–h;* 53, *j*)

Form: composite silhouette bowls with somewhat concave sides, convex bottoms. Three conical supports, usually solid, although some may be hollow near juncture with body. Rims thickened on exterior to form fairly flat bolsters.

Dimensions: rim diameters 30–36 centimeters, average 32 centimeters. Height from rim to break of body 4.0–6.2 centimeters, average 5.1 centimeters (total height unknown). Wall thickness .9–1.4 centimeters, average 1.1 centimeters. Base thickness .7–1.5 centimeters, average 1.0 centimeter.

Surface: slipped white on all surfaces with the possible exception of supports and the underside of some bases. All surfaces excluding supports and interior bottoms are burnished. Slips often worn from grating surfaces by use.

Decoration: on grater surfaces (fig. 53, *j*), "Opposed Areas of Parallel Lines" continues, but comb techniques predominate; "Hub-and-Spokes" apparently dies out. The most common are MacNeish's "Undulating Parallel Lines," which appear late in the subphase, and "Curvilinear Parallel Lines Opposed to Straight Parallel Lines"; both of these are made by raking a comb over the damp surface, either before or after slipping, the deepness of the raking varying from fine and shallow to very deep and wide.

Comment: There can be no doubt that both Conchas 1 and 2 grater bowls were really used as such. The scored interiors are usually badly worn down by use, generally toward the center. Feet often show considerable wear which is a result of the unavoidable moving back and forth of the grater, during use, across the surface on which it rested. Small stone pestles, belonging to the Conchas phase perhaps, were employed with these bowls to grate a seasoning like chile peppers.

Comparative material: Pavon site, Vera Cruz —the white monochrome grater bowls from the earlier part of the Pánuco sequence outlined by Ekholm (1944) and by MacNeish (1954) are so strikingly similar to those of La Victoria that there is no question about a direct relationship between the two areas in this form. Progreso White grater bowls begin in the earliest phase, Pavon, but these are unsupported and lack the composite silhouette shape. One also lacks tripod feet, but designs like "Hub-and-Spokes" (MacNeish, 1954, fig. 12, nos. 2 and 3), "Opposed Areas of Parallel Lines" (MacNeish, 1954, fig. 12, no. 14; fig. 14, no. 11) appear. The Aguilar phase introduces the tripod grater bowl and, in the later part of the phase, "Undulating Parallel Lines" (many of the earlier scoring patterns continue). Aguilar supports are solid and conical like those of Conchas 1 and 2. Chila (or Pánuco I, *see* Ekholm, 1944, fig. 4, *a–i*) has Chila White tripod grater bowls in composite silhouette that recall the form of Conchas 1 graters, but with quite different and more Ticoman-like feet. All white monochrome types in the Pánuco sequence, however, differ considerably from Conchas White-to-buff, being much softer in slip and in paste and lacking some of the paste qualities of the latter (based on examination of type collection in *AMNH*). *El Arbolillo I,* in the early part of the phase, black composite silhouette bowls with tripod feet and incised, red-filled decoration, are in shape identical to Conchas 1 grater bowls (Vaillant, 1935, fig. 19, nos. 1–3). In Late I, thick black grater bowls, unsupported, have sunburst patterns on the bottoms which look like Conchas 1 "Hub-and-Spoke" designs, and, moreover, these vessels recall Tlatilco. *Middle Zacatenco* (Vaillant, 1930, pl. V, *a, b*) has red-on-white tripod bowls which resemble in shape Conchas graters. *Tlatilco* (Piña Chan, 1958, fig. 34, *a*) has a tripod grater bowl in "*café negruzco*" with "sunburst" scoring on the interior and long but somewhat undulating feet. Bowls with similarly scored interiors but lacking feet are known in some ware (Piña Chan, 1958, fig. 34, *b* and *c*), in burnished white (fig. 38, *b*), and in red-on-light-brown (fig. 43, *i*). *Tlapacoya* (Barba de Piña Chan, 1956, pl. 3, *b, c*) has "sunburst" graters in white monochrome, presumably unsupported. This site is placed by her in her husband's "Middle Pre-Classic."

Deep bowls (fig. 27, *b–c*)

Form: simple silhouette bowls, deep, with flat and unsupported bases, plain rims. The walls may be somewhat constricted; the form probably overlaps with cylindrical to barrel-shaped jars on the one hand, and with neckless jars on the other.

Dimensions: rim diameters 17–19 centimeters, average 18 centimeters. Wall thickness .7–.8 centimeter, average .7 centimeter. One almost complete vessel has height of 12 centimeters.

Surface: slipped and burnished on all surfaces. Slip on soft-paste vessel very thin, almost a wash, and perhaps unburnished.

Decoration: some plain; others have two or more horizontal incised lines below rim on exterior; double-line-break found. One vessel had lines combined with incised crosshatching. Some have only simple horizontal, pre-slip groove below rim on exterior.

Bowls, outprojecting rims (fig. 26, *e*)

Form: deep bowls with gently convex sides, rims thickened on the exterior where they are somewhat outprojecting. Upper surfaces of

rims beveled or slightly convex. Bases presumably flat and unsupported. These vessels were quite large.

Dimensions: rim diameters 31–42 centimeters, average 36 centimeters. Height unknown. Wall thickness .8–1.2 centimeters, average 1.0 centimeter.

Surface: all slipped and burnished on rims and interiors; some slipped and burnished on exteriors as well, while others unslipped and unburnished on that surface.

Decoration: none.

Comparative material: Playa de los Muertos (*PM* Coll.), identical form in white monochrome.

Cylindrical vases (fig. 27, *e*)

Form: tall vessels with unconstricted orifices, bases presumably flat and unsupported, walls almost vertical but often slightly flaring toward rim, rims themselves plain.

Dimensions: rim diameters 10–18 centimeters, average 16 centimeters. Height unknown, but probably almost double diameter. Wall thickness .6–1.1 centimeters, average .8 centimeter.

Surface: slipped and burnished on all surfaces.

Decoration: A few are undecorated, but most have single horizontal, post-burnish incised line below rim on exterior.

Stools (fig. 26, *c*, *d*)

Form: flat to gently concave disks supported by annular bases. No fragments large enough to determine if a central hole is present in the disks.

Dimensions: One sherd shows disk diameter of 30 centimeters. Disk thickness 1.9 centimeters. Annular base thickness 1.3 centimeters. Height unknown. Other sherds too fragmentary.

Surface: slipped and burnished on all surfaces excepting underside of disk and interior surface of annular base.

Decoration: One annular base had bold designs in deep pre-slip grooving.

Comment: This form in this and other types could only have been used as a seat. Fragments show that the upper disk was too flat to ever have served as a pot rest (unless one summons the aid of a pot of almost infinitely large dimensions). Moreover, the surface of the annular base, which rested on the ground or floor, often shows abrasion and wear which could only have resulted from moving slightly under heavy pressure—the type of wear which a stool would normally be subjected to. It may be that the pottery stool is the prototype of a later form which really was used as a pot rest (especially during the Proto-Classic).

Comparative material: Pottery stools of almost identical form and dimensions have a wide distribution in both Central and South America which will be discussed in a subsequent section. There are several other occurrences in Middle America, during the Formative. *Chiapa de Corzo*, Pit 38 Period (i.e., Chiapa II), "pot rests or incensarios" of identical form are shown (Dixon, n.d., fig. 43); these have central perforations in the disks like true South American pottery stools. *La Venta*, Drucker (1952, p. 121, fig. 40, *e*) identifies the same form as a "pot rest"—this has slightly concave disk with central perforation and annular base; fragments of such a form are said to occur in all levels; measurements of one pottery stool tally with similar measurements on South American stools.

CONCHAS STREAKY BROWN-BLACK
(Conchas 2)

Paste: fairly hard. Crystal ash temper. Color of paste toward exterior is buff to brown, cores always dark gray.

Surface: slipped and burnished on all surfaces. Slip usually has streaky appearance. This a result of composition of slip and varying pressures applied during burnishing, for where not highly burnished, slip is lighter and pinker in color. A very few sherds have streaked "fish-scale" effect.

Color: range is black to 5.0 YR 5/2 (Reddish Gray) and 7.5 YR 4.5/2 (Brown), with pinkish streaks 5.0 YR 6/4 (Light Reddish Brown).

Comments: only one shape is known for this type.

Shapes:

Composite silhouette bowls (fig. 35, *i*)

Form: composite silhouette vessel with base which is usually dimpled but sometimes flat, a well-marked ridge where sides and bottom meet, sides slightly outsloping to moderately

insloping and convex. Rims plain, usually rounded.

Dimensions: rim diameters 16–23 centimeters, average 20 centimeters. Diameters at break of body 17–25 centimeters, average 22 centimeters. Estimated height 8.5–12.0 centimeters. Wall thickness on sides .5–.7 centimeter, average .6 centimeter (thickness of bases somewhat less).

Decoration: On almost all examples one or two horizontal, pre-slip grooves encircle the vessel just below the rim on the exterior. All examples have, between these grooves and the body break, multiple diagonal parallel lines in fine, indented-line burnishing. On interior bottoms are rectilinear and curvilinear designs in fine, indented-line burnishing, sometimes resembling branching trees. Occasionally this line burnishing is done with a sharper tool and becomes post-slip incising.

Comment: One sherd from F–5, Level 10, imitates the form and decoration, but in Conchas White-to-buff.

Comparative material: Zacualpa, Balam phase (Wauchope, 1948, fig. 28), composite silhouette bowls in Brown-black ware closely resembling Conchas examples in form and decoration. However, these lack the line burnishing and dimpled bases and furthermore, some examples are tetrapod with mammiform supports, a feature unknown in Conchas.

OCÓS BLACK

SHAPES:

Heavy neckless jars (Conchas 2; fig. 29, *n*)

Form: subglobular to somewhat barrel-shaped neckless jars, bases presumably flat and unsupported, rims plain.

Dimensions: one example—inner rim diameter 35 centimeters. Body diameter 35 centimeters. Wall thickness .8 centimeter. Others—inner rim diameter 14–15 centimeters. Body diameters 17–22 centimeters. Wall thickness .5–.7 centimeter.

Surface: usually slipped and burnished on all surfaces; some have slip below rim on exterior in horizontal band, but unslipped and unburnished below that.

Decoration: often a single horizontal indented line below rim on exterior.

Necked jars (Conchas 1 and 2; fig. 28, *a*)

Form: jars with vertical to moderately flaring necks. Body and base form unknown.

Dimensions: rim diameters 13–20 centimeters, average 16 centimeters. Rim height 2.5–5.0 centimeters, average 3.2 centimeters. Body wall thickness .6–.9 centimeter, average .7 centimeter.

Surface: slipped and burnished on exteriors and on neck interiors. Body interiors unslipped, unburnished. Some black slips have "fish-scale" effect.

Decoration: some necks have a single horizontal, pre-slip groove below rim on exterior.

Collared jars (Conchas 1 and 2; figs. 28, *b, c;* 30, *f*)

Form: subglobular jars, bases presumably flat and unsupported, mouths surrounded by low collars which appear vertical to slightly insloping. Collars sometimes thickened.

Dimensions: rim diameters 16–30 centimeters, average 24 centimeters. Wall thickness .6–.9 centimeter, average .8 centimeter. Body diameters and height unknown.

Surface: usually slipped on both interior and exterior, exterior well-burnished but interior poorly burnished. Some interiors unslipped, unburnished.

Decoration: One vessel had widely spaced vertical, pre-slip grooves on exterior below collar.

Dishes, outflaring sides (Conchas 1 and 2; figs. 28, *d, e;* 52, *j, l–o*)

Form: dishes with flat bases, no supports, sides moderately to strongly outflaring, rims usually simple and rounded.

Dimensions: rim diameters 13–40 centimeters, average 27 centimeters. Base diameters 11–36 centimeters, average 23 centimeters. Height 2.1–7.0 centimeters, average 4.7 centimeters. Wall thickness .6–1.1 centimeters, average .8 centimeter.

Surface: apparently slipped on all surfaces, although in some cases it would be hard to determine that the unslipped but burnished surface was not merely subjected to reduction during firing. Some Conchas 1 excised examples have only a partially reduced surface, with the unreduced areas the natural buff color. All surfaces burnished.

Decorations: 1) Shallow excising or scraping (fig. 52, *j, l, m*) is common only in Conchas 1. This consists of the scraping away from the exterior, following burnishing, of rectangular or somewhat curvilinear areas of slip. Incised lines were used to supplement the design, and red pigment was later rubbed into the rough excised areas and into the incised lines (one sherd has white pigment so used). *2*) Post-burnish incising is found in both subphases. Conchas 1 emphasizes incised circles and straight lines, with red pigment rubbed into both. Conchas 1 and 2 both have one or more horizontal incised lines below rim on interior or exterior, and above the base on the exterior, with the use of the double-line-break motif. *3*) Broad-line burnishing (fig. 52, *n, o*) is sometimes found on the underside of Conchas 1 bases, in crude designs of crisscrossing lines. *4*) The over-all coating of the exterior or both surfaces with red pigment is confined to Conchas 1, and generally to very small dishes. *5*) Plain, undecorated dishes are most common in Conchas 1.

Comparative material: see discussion of Conchas White-to-buff dishes of this shape, with double-line-break incising.

Dishes, wide everted rims (Conchas 2; fig. 29, *e*)

Form: (known only from a single sherd), dish with flaring sides, wide everted rim, base presumably flat and unsupported.

Dimensions: rim diameter 36 centimeters. Wall thickness .9 centimeter.

Surface: slipped and burnished on all surfaces; "fish-scale" effect present.

Decoration: three shallow, horizontal, pre-slip grooves on upper surface of rim.

Comparative material: For the known distribution of this form, a very important time marker is the Formative of Middle American, see entry under Conchas Orange. *Naltic*, Chiapas (Piña Chan Coll. in *INAH*), two sherds of this shape in black monochrome. However, one rim is eccentric, and both show a different kind of grooving on upper surface of rims. Black monochrome dishes with wide everted rims are elsewhere rare or absent.

Cylindrical or barrel-shaped jars (Conchas 1 and 2; fig. 29, *g, k–m*)

Form: deep vessels with flat, unsupported bases, walls vertical to slightly convex.

Dimensions: rim diameters 13–33 centimeters, average 22 centimeters. Wall thickness .7–.9 centimeter, average .8 centimeter. Height unknown.

Surface: interiors always slipped black and burnished. Fifty-two per cent are also slipped black and burnished on all other surfaces including the underside of the base. Thirty-two per cent are slipped black and burnished on the rim exterior in a horizontal band, below which the body is unslipped and unburnished, and left natural with striations resulting from coarse scraping. Sixteen per cent are slipped black and burnished on the exterior rim band, while the body below this is fired white and burnished.

Decoration: vessels which are all-over black often have three or four horizontal, post-burnish incised lines below rim exterior and also above base; some of these are filled with red pigment. Others have pre-slip grooving. Black-rimmed vessels have slightly swelled rims, with a single horizontal, pre-slip groove below on the exterior.

Comment: The black-rimmed forms with white bodies show that Ocós Black and Conchas White-to-buff are perhaps chemically the same kind of slip, with a differential in oxidizing or reducing environments producing different colors.

Comparative material: El Trapiche Mata Verde (*MNAE* Coll. Lot F–21), jars of identical shape in black monochrome, with most of exterior below band on rim left rough and unslipped; rims fired to a white which looks identical to Conchas White-to-buff.

Simple silhouette bowls (Conchas 1 and 2; fig. 29, *f, h–j*)

Form: open bowls with flat, unsupported bases, rims rounded or Gothic-arch in cross-section. Usually have depressed horizontal band approximately 1.5 centimeters below rim on exterior.

Dimensions: rim diameters 15–31 centimeters, average 23 centimeters. Wall thickness .6–.9 centimeter, average .7 centimeter. Height of one example 6.5 centimeters, but others usually taller.

Surface: all slipped black and burnished on interiors. Fourteen per cent retain natural buff,

unslipped surfaces on exterior, 86 per cent slipped black and burnished on exterior.

Decoration: seventy per cent have depressed band below rim. One example has incised areas filled with hachure, with entire exterior then coated with red pigment (after firing). Two sherds show double-line-break motif encircling vessel below rim exterior, one in post-burnish incising, the other in pre-slip grooving.

Comparative material: Playa de los Muertos (*PM* Coll.), same shape in white monochrome, with depressed band. *Uaxactún*, Mamom phase (*RES*, fig. 14, *c*, *l*), same shape in black monochrome, horizontal, post-burnish incised lines below rim on exterior.

Bowls, beveled rims (Conchas 1 and 2; fig. 29, *a*, *c*, *d*)

Form: open bowls, presumably with flat, unsupported bases, rims thickened and flattened at angle to form bevel. Most rims project exteriorly and are often eccentric, with tablike projections.

Dimensions (based on small sherds): rim diameters 21–35 centimeters, average 28 centimeters. Height unknown. Wall thickness .6–1.0 centimeter, average .7 centimeter.

Surface: all apparently slipped and burnished on interior; 67 per cent of exteriors slipped and burnished, 33 per cent unslipped and usually left buff unburnished.

Decoration: eighty-five per cent have one or more horizontal grooves (usually pre-slip or pre-burnish) on upper surface of rim bevel, often breaking outward at rim eccentricity. Fifteen per cent undecorated. One example has post-burnish incising on upper surface. Some sherds coated with red pigment.

Comparative material: Playa de los Muertos (Strong, Kidder, and Paul, 1938, pl. 10, *b*), bowls with eccentric, beveled rims, grooved, double-line-break motifs on bevels, in orange-red to brown monochrome. *Chiapa de Corzo* (*NWAF* Coll.), Chiapa II phase, identical shape and decoration in black monochrome and white monochrome. *Uaxactún*, Chicanel phase (*RES*, fig. 70, *b*, *2*) fragment of unslipped eccentric rim with broken, pre-slip grooving on bevel (I would suggest the possibility that this sherd is Mamom).

Composite silhouette bowls (Conchas 1 and 2; fig. 30, *a–d*)

Form: bowls with concave and often flaring sides, rounded and convex bottoms. Some have slightly constricted orifices. Form of bases unknown.

Dimensions: rim diameters 18–37 centimeters, average 28 centimeters. Diameter at body break 18–34 centimeters, average 27 centimeters. Estimated height of one example 9.5–10.0 centimeters. Wall thickness .6–1.4 centimeters, average 1.0 centimeter.

Surface: interiors slipped black and burnished. Exteriors usually unslipped and buff, with only a few burnished. A small number are slipped red or black on the exterior and burnished.

Decoration: one red exterior has post-slip incising; two black exteriors show crude horizontal, pre-slip fluting or rippling above the break angle.

Comparative material: Uaxactun, Mamom phase (*RES*, fig. 14, *c*, *6*), composite silhouette ("basal angle") bowl in black monochrome with horizontal fluting on the exterior. *Early Zacatenco* (Vaillant, 1930, pl. I, *b*), thin black monochrome composite silhouette bowl, horizontal fluting on exterior above the angle. *El Arbolillo* I (Vaillant, 1935), late subphase, black monochrome composite silhouette bowl of very Conchas-like appearance.

Cuspidors (Conchas 1 and 2)

Form: composite silhouette bowls with straight, out-slanting walls above convex-sided bottoms. Bases presumably flat and unsupported. Rims plain and slightly flaring.

Dimensions (based on two fragments): rim diameters 22 and 24 centimeters. Thickness below break .7–.8 centimeter (but thicker above). Estimated height 8.5 centimeters.

Surface: variable. Some are slipped and burnished (some only on exterior or on interior). One sherd has very thin wash of black which appears worn or even fugitive.

Decoration: none.

Comparative material: The cuspidor shape is found in both Las Charcas and in the Mamom phase at *Uaxactun* (*MNAE* Coll.), in several wares. *Uaxactun*, Mamom phase (*RR*, fig. 147, *c*, 2 and 7), shows shape (ware?) very similar to Conchas cuspidors. For fuller discussion, see under Conchas Red-and-white.

Stools (Conchas 2; fig. 29, *b*)

Form: gently concave disk supported by annular base. Possibly a central hole in the disk.

Dimensions (one fragment): disk diameter 26 centimeters. Disk thickness (toward center) 1.9 centimeters. Annular base thickness 1.5 centimeters. Height unknown.

Surface: thick, crackly burnished black slip on all surfaces except those within annular base.

Decoration: none.

Comparative material: see under Conchas White-to-buff.

OCÓS GRAY

SHAPES:

Heavy neckless jars (Conchas 2; fig. 30, *i*)

Form: globular or subglobular neckless jars, bases presumably flat and unsupported, walls somewhat thicker than in thin-walled neckless jars of Ocós phase.

Dimensions: inner rim diameters 10–15 centimeters, average 13 centimeters. Height unknown. Wall thickness .9–1.0 centimeter.

Surface: exteriors slipped and burnished. Interiors unslipped, unburnished.

Decoration: below rim on exterior, two horizontal, deeply incised, post-slip lines.

Necked jars (Conchas 2; fig. 30, *j*)

Form: globular or subglobular jars with medium high, straight or slightly outflaring necks.

Dimensions: rim diameters 11–13 centimeters, average 12 centimeters. Wall thickness .8 centimeter. Other dimensions unknown.

Surface: exteriors appear to be slipped, but not certain. Burnishing on exterior of vessel over rim to inside of neck.

Decoration: none.

Simple silhouette bowls (Conchas 2; fig. 30, *h*)

Form: open vessels with plain rims, bases presumably flat and unsupported. Rims somewhat incurved.

Dimensions: rim diameters 26–28 centimeters, average 27 centimeters. Wall thickness .7–1.0 centimeter, average .8 centimeter.

Surface: slipped and burnished on all surfaces.

Decorations: none.

Bowls, beveled rims (Conchas 2; fig. 30, *k–m*)

Form: open bowls with convex sides, rims beveled and outprojecting, usually with eccentric tabs, bases presumably flat and unsupported.

Dimensions: inner rim diameters 24–36 centimeters, average 29 centimeters. Outer rim diameters difficult to measure because of eccentricity, but are 3–5 centimeters more. Height unknown, estimated 7–8 centimeters. Wall thickness .9–1.1 centimeters, average 1.0 centimeter.

Surface: slipped and burnished on all surfaces.

Decoration: most have eccentric rims with horizontal, pre-slip grooved lines on bevel; some have post-slip incised lines in combination with grooving; designs usually include double-line-break motif or something similar.

Comparative material: Chiapa de Corzo (*NWAF* Coll.), identical shape and decoration, in gray monochrome, in Chiapa II phase. *Playa de los Muertos* (*PM* Coll.), same shape in bowls of fugitive red on gray or gray-brown, but these show more rim eversion and outprojection. See Ocós Black, Conchas phase, for discussion of form.

Cylindrical jars (Conchas 1)

Form: tall vessels with plain rims, bases presumably flat and unsupported, walls vertical.

Dimensions (two fragments): rim diameters 14 and 17 centimeters. Wall thickness .7 and .9 centimeter. Height unknown.

Surface: slipped and burnished on both surfaces.

Decoration: one or more horizontal, post-slip incised lines below rim on exterior.

CONCHAS RED-AND-WHITE

PASTE: fairly hard to very hard, but most are hard. Crystal ash temper, often with pumice inclusions. Color 5.0 YR 4.5/6 (Yellow Red) to 10.0 R 6/3 (Pale Red), but most are around 10.0 YR 6/4 (Light Yellowish Brown). Dark cores are rare, and in thicker examples even lighter cores are found.

SURFACE: slipped and burnished on one or both surfaces, depending on shape. An important feature of the type is that the white slip

and the red slip are applied in separate areas, usually divided by a grooved or incised line, and *never* one over the other. White slips often show "fish-scale" effect.

Color: red-slipped areas range from 10.0 R 4/5 (Red) to 10.0 R 4/7 (Red), a very narrow range. White-slipped areas are within Conchas White-to-buff range, from a fairly pure white through 7.5 YR 8/6 (Reddish Yellow).

Comparative material: red-and-white bichrome has a rather restricted distribution in Middle America, being confined, to my knowledge, to the Formative and to certain sites only. Among these are Chiapa de Corzo (Chiapa II), Río Blanco (Quiche), Kaminaljuyu (Lots C–100 and C–100a in the *MNAE* Coll. from Md. C–III–10). Extremely interesting tie-ins with Ecuador are found in this type (Coe, 1960).

Shapes:

Heavy neckless jars (Conchas 1 and 2; fig. 34, *a–c*, *e–f*)

Form: large, neckless vessels, globular in outline, with presumably flat, unsupported bases. Rims usually simple, but, occasionally, depressed band along lip of 1–2 centimeters width, or else greatly thickened into bolster. Two examples have pairs of holes punched through when the vessel was still wet; each hole is .3–.5 centimeter in diameter, and spaced 2.0–3.3 centimeters from its partner; the pairs are 1.5–3.0 centimeters below the rim.

Dimensions: inner rim diameters 14–20 centimeters, average 18 centimeters. Two estimated body diameters are 48 centimeters and 22 centimeters. Height unknown, but probably near body diameter. Wall thickness .7–1.7 centimeters, average 1.1 centimeters. Rim thickness .9–2.4 centimeters, average 1.6 centimeters.

Surface: exteriors slipped red-and-white, usually roughly burnished, although some finely burnished. Interiors—20 per cent slipped white and burnished; 80 per cent scraped, but unslipped and unburnished.

Decoration: zoned red-and-white slipping outlined by fairly coarse pre- or post-slip (pre-burnish) incising. Rims always have a band of either red or white. Bodies apparently have large adjoining circles in either color in bands around the circumference of the vessel, surrounded by areas of the other color. Examination shows the white areas were the first to be painted on.

Comment: The punched holes show no signs of wear, so it is doubtful if they were used for suspension. Besides, strings which would fit through the holes would be of insufficient strength to hold the vessel if it was filled with water. It seems more likely that the holes were placed so that a cover of hide, cloth, or wood could be held down over the mouth of the jar.

Comparative material: Chiapa de Corzo (*NWAF* Coll.), similar decorative motifs on large red-on-coarse neckless jars of the Chiapa I phase. *Kaminaljuyu* (*MNAE* Coll.) Lots C–100 and C–100a from Md. C–III–10 belonging either to Las Charcas or Arévalo, have red-and-white neckless jars which are almost identical to Conchas specimens. These are also roughly burnished, cover same color range, with comparable dimensions. Absent, however, are greatly thickened rims and zoned incising. Other sherds in these lots include fragments of plain red unburnished and plain coarse neckless jars of Conchas form and appearance.

Small neckless jars (Conchas 2; fig. 34, *d*)

Form: small, globular neckless jars, with flat and unsupported bases.

Dimensions (one almost complete vessel): rim diameter 8 centimeters. Body diameter 12 centimeters. Height 7.5 centimeters. Wall thickness .4 centimeter.

Surface: slipped red-and-white on exterior, well-burnished. Some interiors unslipped and unburnished, merely wiped while wet. Others have interiors slipped white and burnished.

Decoration: red band applied on vessel just below rim exterior over lip to interior, following white-slipping of rest of body. Two examples are all-white on exterior, with horizontal red band placed above white on interior. Zoned incising absent.

Comparative material: Chiapa de Corzo (personal information, C. Navarrete), Chiapa II deposits in Pit 38–B have identical vessels in form, size, and decoration.

Bowls or dishes, flat bases (Conchas 2; fig. 35, *a–b*)

Form: vessels with flat, unsupported bases. Sides slightly convex (bowls) to somewhat flaring (dishes). Rims usually beveled or flat-

tened on top. Some rims thickened on exterior and rounded.

Dimensions: one example—rim diameter 28 centimeters. Base diameter 22 centimeters. Height 8.5 centimeters. Wall thickness 1.0 centimeter. Another—rim diameter 41 centimeters. Height 8.3 centimeters. Wall thickness 1.0 centimeter. Others—rim diameters 30–40 centimeters, average 34 centimeters. Wall thickness .7–1.3 centimeters, average 1.0 centimeter.

Surface: slipped "fish-scale" white on interior and exterior, red on upper surface of lip. All surfaces burnished.

Decoration: wall interiors and base interiors often have post-burnish incised designs in curvilinear and/or straight lines. Exteriors sometimes have single horizontal, post-burnish incised line below rim. A single Conchas 1 fragment resembles this type and shape, had purplish stripes over white on the interior.

Comment: one fairly complete vessel shows unmistakable signs of having been placed directly over a fire, perhaps used for cooking or keeping already-cooked food warm.

Comparative material: Río Blanco (Quiche) (*MNAE* Coll., Lot E–86), while largely Formative, has sherd from dish of identical paste, slip, form, and decoration—clearly a Conchas Red-and-white trade sherd; for trade sherds in the other direction, see under Río Blanco Orange.

Simple silhouette bowls (Conchas 1 and 2; fig. 34, *g*, *h*)

Form: wide, open bowls with presumably flat and unsupported bases. One Conchas 1 example (fig. 34, *h*) has a flat rim with eccentric projection, closely resembling certain Ocós Iridescent bowls of the Ocós phase.

Dimensions: rim diameters 29–40 centimeters, average 34 centimeters. Wall thickness .7–1.1 centimeters, average .9 centimeter. Height unknown.

Surface: slipped and burnished on all surfaces.

Decoration: usually interiors white, while exteriors have band of red on rim and below, with rest of vessel also white. Band commonly outlined by post-slip incised line. Some interiors have curvilinear designs in post-slip incising.

Cuspidors (Conchas 2; fig. 34, *i*, *j*)

Form: composite silhouette bowls, with straight, outslanting sides above convex-walled, incurving bottoms. Bases flat and unsupported. Rims beveled, thickened on exterior to form ridge.

Dimensions (one reconstructed vessel): rim diameter 35 centimeters. Height 9 centimeters. Wall thickness above bottoms 1.0 centimeter. Other example circa 30 centimeters. Height unknown. Wall thickness 1.1 centimeters.

Surface: all surfaces slipped and burnished; white slips have "fish-scale" effect.

Decoration: rims and lower portion of bodies below break on exterior slipped red; rest of vessel slipped white. Horizontal, post-burnished incised lines on exterior at rim break and at body break. Some white-slipped sides have negative-reduction treatment in oblique parallel stripes all around vessel.

Comparative material: see also under Ocós Black, Conchas phase. *Chiapa de Corzo* (*NWAF*), shape begins in Chiapa III in white-slip on black paste or cream-slip on brown. *Uaxactun*, Mamom phase (*RES*, fig. 14, *b*, *1–10; MNAE* Coll.), shape found in red or orange wares, but lip thickening and bichrome zoning not present. *RR*, fig. 147, *c*, *2* and 7, show a very similar shape from the Mamom phase. Closest resemblances are, however, with Ecuador (Coe, 1960).

CONCHAS RED-ON-BUFF

Paste: fairly hard to very hard, most very hard. Crystal ash temper. Color 10.0 YR 5.5/4 (Light Yellowish Brown) to 10.0 YR 6.5/4 (Very Pale Brown). Cores often dark gray to black.

Surface: zoned red slip, sometimes with specular inclusions, outlined with post-burnish incising, over buff background; buff areas possibly unslipped. One or more surfaces burnished, depending on vessel shape.

Color: red areas have total range from 7.5 R 4/5 (Red) through 10.0 R 4/5 (Red) to 10.0 R 5/4 (Weak Red). Buff areas range from 7.5 YR 5.5/4 (Brown) through 7.5 YR 7/4 (Pink) to 10.0 YR 6/3 (Pale Brown).

Comment: It would perhaps have been more accurate to call this type "Red-on-natural," for there is little certainty that a buff slip was actually applied. However, the term "buff"

has come to be applied in usage to many varieties of burnished, unslipped paste.

SHAPES:

Collared jars (fig. 33, *d*)

Form: small, squat jars with very low necks or collars, bodies subglobular in shape, bases presumably flat and unsupported.

Dimensions: rim diameter 18 centimeters. Body diameter 20 centimeters. Height unknown. Wall thickness .7 centimeter.

Surface: exterior burnished, interior unslipped and unburnished.

Decoration: rim and adjacent upper part of body exterior slipped red, outlined with post-burnish incised line; incised circles within red zone.

Dishes or bowls with flat bases (fig. 33, *i–n, p*)

Form: open vessels with flat, unsupported bases, sides either flaring or straight outslanting (dishes), or with convex outline (bowls). Most rims plain, but some have bolster-like external thickening.

Dimensions: rim diameters 24–36 centimeters, average 31 centimeters. Reconstructed heights of some vessels 5.0, 5.9, and 7.0 centimeters. Wall thickness .8–1.2 centimeters, average 1.0 centimeter.

Surface: all surfaces burnished, with exception of underside of bases. Red slip often has specular hematite inclusions.

Decoration: red zoning includes a wide horizontal band from the rim down, on the interior, outlined by a post-burnish incised line, with another line of the same nature within the zoning. Incision in the double-line-break motif sometimes occurs on rim interiors. Red-zoned curvilinear and rectilinear designs are also found on wall and base interiors.

Comparative material: El Trapiche Mata Verde (*MNAE* Coll., Lot F–21), bowls and dishes with flaring sides, red-on-buff burnished, identical to Conchas examples with exception that incising not present.

Comment: This is the most common form within the type.

Dishes or bowls with beveled rims (fig. 33, *e–h*)

Form: dishes or bowls with flat, unsupported bases and slightly concave to convex sides. The rims are beveled on the interior and are often eccentric.

Dimensions: one example—rim diameter 25 centimeters. Height 4.5 centimeters. Wall thickness 1.0 centimeter. Others—wall thickness .7–1.0 centimeter.

Surface: all exteriors unslipped and unburnished. Some interiors burnished only on red-zoned areas, while others burnished on both color zones.

Decoration: rims and band, extending down from rim to interior, red zoned. Some have pre-slip horizontal grooving on rim bevel, others have post-burnish incising cut through slip.

Comparative material: Playa de los Muertos (*PM* Coll.), Red-on-buff dishes or bowls with everted rims. The red extends down further into the interior than in Conchas, and the rim is somewhat more everted than a plain bevel.

Stools (fig. 33, *o*)

Form: disk of probably gently concave form supported by somewhat concave, insloping annular base. Possibly a central perforation in disk.

Dimensions: annular base only—base diameter 22 centimeters. Diameter where meets disk above 18 centimeters. Thickness varies from 1.0–1.1 centimeters.

Surface: inside annular base unslipped, unburnished; exterior burnished.

Decoration: band of red slip (unzoned) at bottom of annular base.

Comments: Base worn smooth on bottom edges by being moved around, under pressure, on abrasive surface which was not extremely hard. This could have been a hard-packed earth floor or a fairly soft clay floor.

CONCHAS ORANGE

PASTE: fairly hard to hard, most being hard. Crystal ash temper, which may be somewhat coarse in large vessels like necked jars. Color ranges from 2.5 YR 5/4 (Reddish Brown) through 5.0 YR 5/4 (Reddish Brown) to 7.5 YR 6/5 (Reddish Yellow). About half the sherds have gray to dark gray cores.

SURFACE: usually slipped and burnished on all surfaces, with exception of a few constricted forms. Slip is thick and often shows crazing,

the crazed lines being blackish. Apparently slips were usually applied over whitish base coat which shows through in cracked or chipped areas. A small percentage of slips have "fish-scale" effect, showing a genetic relationship with Conchas White-to-buff. The burnishing produces a high gloss, so that some sherds, especially those with very dark cores and crazing, resemble plumbate. The latter, however, is much thinner and of a very fine paste. Differential firing and perhaps actual resist techniques are seen in the production of lighter areas on the slip, resembling "Usulután clouds." Surfaces are never waxy to the touch.

Color: range from 2.5 YR 4.5/8 (Red) and 2.5 YR 5.5/6 (Red) to 10.0 R 5/6 (Red) and 10.0 R 6/9 (Light Red); most in latter part of range. "Clouds" are lighter, 7.5 YR 7/6 (Reddish Yellow) at centers and 7.5 YR 7/8 (Reddish Yellow) at edges. Parts or all of some sherds brown or blackened, possibly due to reduction of some areas during firing or burning after manufacture.

Shapes:

Small neckless jars or bowls (Conchas 2; fig. 31, *c–d*)

Form: subglobular, neckless vessels of small size, vary from bowls with strongly incurving sides to neckless jars.

Dimensions: inner rim diameter 6–17 centimeters, average 12 centimeters. Body diameters 11–19 centimeters, average 15 centimeters. Height unknown. Wall thickness .5–.6 centimeter, average .6 centimeter.

Surface: more open vessels slipped and burnished on all surfaces, more constricted vessels slipped and burnished only on exterior.

Decoration: none.

Necked jars (Conchas 2; fig. 31, *a*, *b*)

Form: large, necked storage vessels, globular (?) bodies, bases presumably flat and unsupported. Two kinds of neck: *1*) high and somewhat outflaring; *2*) low, with exterior beveled thickening at rim.

Dimensions: rim diameters 28–32 centimeters, average 30 centimeters. Body diameters unknown. Thickness of body wall 1.0 centimeter.

Surface: slipped and burnished on exterior surfaces and on interiors of necks. Body interiors unslipped and unburnished.

Decoration: splotches and lines of a lighter color than other slip areas, probably done in resist.

Dishes, labial ridges (Conchas 2; fig. 31, *j*, *l*)

Form: dishes with bases slightly rounded to flat, no supports, sides somewhat flaring, rims thickened exteriorly into labial ridge (ridges of dishes late in subphase almost form flanges).

Dimensions: rim diameters 31–44 centimeters, average 37 centimeters. Base diameters 30–36 centimeters, average 33 centimeters. Height 5.5–7.9 centimeters, average 6.7 centimeters. Wall thickness .8–.9 centimeter, average .9 centimeter.

Surface: slipped and burnished on all surfaces, but slips very thin on underside of bases. Crazing usually present.

Decoration: one example has vertical, post-slip indented lines running down interior from rim. Others undecorated.

Comparative material: Kaminaljuyu, Las Charcas phase (*MNAE* Coll., Lot C–95), from fill of ancient Pit No. 2, vessel of identical shape in orange monochrome, including mottled resist effects. Base is a little more convex and there is an incised line on rim top, two double incised lines at intervals on the exterior. Color range approximately the same. *Sta. Barbara Los Arcos*, Las Charcas phase (*NMAE* Coll.), same shape in white monochrome from fill of pit. *Chiapa de Corzo* (*NWAF* Coll.), identical shape in orange monochrome with resist "clouds" considered one of diagnostics of Chiapa III phase. *Naltic*, Chiapas (Piña Chan Coll. in *INAH*), same shape in orange monochrome. *Playa de los Muertos* (*PM* Coll.), same shape in orange monochrome. *Uaxactun*, Chicanel phase (*RES*, fig. 11, *m*), same shape in variegated (red), with fire-clouding and crazing.

Dishes, wide everted rims (Conchas 2; fig. 32)

Form: dishes with flat, unsupported bases and outslanting sides, rims everted and wide, usually laterally grooved on upper surfaces and often with eccentric tabs on the exterior. Bases occasionally have small dimple.

Dimensions: outer rim diameters 20–44 centimeters, average 35 centimeters. Inner rim

diameters 16–35 centimeters, average 28 centimeters. Base diameters (two examples) 15 and 17 centimeters. Height (two examples) 3.5 and 5.0 centimeters. Wall thickness .7–1.1 centimeters, average .9 centimeter. Rim width 2.0–4.3 centimeters, average 3.3 centimeters.

Surface: slipped and burnished on all surfaces.

Decoration: all rims have one to four (most usually two) wide, and very shallow, pre-slip grooves on upper surface arranged in parallel. Most rims also have narrower pre-slip grooves in combination with the wider grooves. Interior bottoms have similar narrow, pre-slip grooves in undulating parallel-line motifs. Some rims and some bottoms appear to have deliberately applied resist "clouds" in isolated splotches or rows of ragged spots, producing a mottled effect. One dish, which may belong to Crucero rather than to Conchas 2, has a schematized face and forearm of an animal modeled in relief on the upper surface of the rim. Perhaps the entire animal was represented on the complete rim.

Comparative material: Chiapa de Corzo (*NWAF* Coll.), this form in orange monochrome is typical of Chiapa IV, but ceramic qualities appear closer to Chicanel than to Conchas, especially in the waxiness of Chiapa IV slips. *Juan Crispín*, in Tuxtla Gutiérrez, Chiapas, has dishes of this form and shape, including rims with grooved and/or modeled decoration, found in tomb excavated by C. Navarrete. *Mazatán*, Chiapas (Piña Chan Coll. in *INAH*), same form with grooved rims in orange monochrome, but paste is finer and more buff, resembling Chiapa IV rather than Conchas. Resist "clouds" and stripes appear in other orange monochrome shapes at this site. *Naltic*, Chiapas (Piña Chan Coll. in *INAH*), same shape with rim grooving in orange monochrome, paste resembles Chiapa IV orange monochrome. *Sin Cabezas* (*MNAE* Coll.), orange monochrome dishes with everted rims and resist "clouds," but tetrapod exactly like certain Chicanel vessels (*RES*, fig. 7, *k*). *Uaxactún*, Chicanel phase (*RES*, fig. 16, *c*), red (or what has been called in this report, orange) monochrome dishes of similar shape and with rim grooving, the angle of rim and body less sharp than in Conchas.

Comment: orange or reddish-orange vessels of this form have a wide distribution, generally in the later part of the Formative, from Yucatan through the central Maya area over through Chiapas and across to the Pacific coast where they are found as far east as Tiquisate. While they are generally labeled "Chicanel" wherever they are found, there is as yet no proof that they originated in the Petén; they are among a number of forms common to a broad L- or U-shaped area in which are found monochrome orange ceramics.

Dishes, outflaring sides (Conchas 2; fig. 31, *i*)

Form: dishes with flaring sides, plain rims, and flat, unsupported bases.

Dimensions: rim diameters 22–23 centimeters, average 23 centimeters. Height 4.2–4.8 centimeters, average 4.5 centimeters. Wall thickness .8–1.0 centimeter, average .9 centimeter.

Surface: slipped and burnished on all surfaces; crazing effect common.

Decoration: none known.

Comparative material: Chiapa de Corzo (*NWAF* Coll.), orange monochrome dishes of same form found in Chiapa III, with resist "clouds" present.

Bowls, beveled rims (Conchas 2; fig. 31, *f*)

Form: open vessels with convex sides, bases presumably flat and unsupported, rims flattened on top and externally thickened, with eccentric projections.

Dimensions: inner rim diameter 25 centimeters. Outer rim diameter 29 centimeters. Wall thickness .9 centimeter.

Surface: evidently slipped and burnished on all surfaces, but much worn on exterior. Slip crazed.

Decoration: pre-slip grooved lines on rim bevel in double-line-break design.

Comment: exactly like same form in Ocós Gray, Conchas phase.

Comparative material: Playa de los Muertos (*PM* Coll.), form and decoration appear common in orange monochrome; double-line-break motif on rims.

Deep bowls or cylindrical jars (Conchas 2; fig. 31, *e*, *h*)

Form: deep vessels with either straight or slightly convex sides, bases of unknown form. Rims slightly to strongly outflared, some orifices somewhat constricted. From fragmentary

nature of sherds, difficult to reconstruct form or forms with any exactitude.

Dimensions: rim diameters 21–34 centimeters, average 27 centimeters. Wall thickness .7–1.1 centimeters, average .9 centimeter.

Surface: always slipped and burnished on exterior and over onto inner surface of rim. Some interiors slipped and burnished, others left plain.

Decoration: on exterior below rim, one or more horizontal, pre-slip raised bands outlined by broad, shallow grooves are usual. Two vessels have shallow, pre-slip grooves in designs of parallel straight lines on exterior.

Comment: vessels of this form are often somewhat redder than usual range for this type, and may overlap with another as yet undetermined Conchas type.

Comparative material: Mazatán, Chiapas (Piña Chan Coll. in *INAH*), sherds of similar profile in orange monochrome, usually at redder end of color range, as in Conchas.

Composite silhouette bowls (Conchas 2; fig. 31, *k*)

Form: generally constricted orifice bowls with bases probably of indented dimple kind, convex bottoms, well-marked ridges where sides and bottom meet, sides usually straight and insloping, although one vessel has outflaring sides.

Dimensions: unknown, but close to those for the same shape in Conchas Streaky Brown-black. Measurements of this form were inadvertently omitted.

Surface: slipped and burnished on all surfaces.

Decoration: almost all have a single wide, indented, pre-slip groove placed horizontally below the rim on the exterior. Some also have shallow, pre-slip grooves in rectilinear designs of multiple parallel lines on the exterior.

Comment: apparently the analogy in this ware of composite silhouette bowls of Conchas Streaky Brown-black.

Cuspidors (Conchas 2; fig. 31, *g*)

Form: composite silhouette vessels with slightly outflaring sides above a constricted but strongly flattened, convex-walled bottom. Bases presumably flat and unsupported, rim form unknown.

Dimensions: body diameter of one fragment 24 centimeters. Wall thickness .8 centimeter.

Surface: thickly slipped and burnished on all exteriors. One exterior surface slipped and burnished, exterior on another example is left plain.

Decoration: none known.

Comparative material: Chiapa de Corzo (*NWAF* Coll.), shape in orange monochrome known from Chiapa III. *Mazatán* and *Naltic*, Chiapas (Piña Chan Coll. in *INAH*), same shape in monochrome with resist "clouds," but closer to Chiapa III than to Conchas.

RÍO BLANCO ORANGE
(Conchas 2)

Paste: fairly hard to hard. Crystal ash temper, with many somewhat coarse pumice inclusions. Color toward exterior 5.0 YR 5.5/5 (Reddish Yellow) and 10.0 YR 7/5 (Yellow) interior cores gray to dark gray.

Surface: slipped and highly burnished on all surfaces. Slip is thick and apparently doubled; in parts it is crackly and has what look like rootlet marks on the surface. In some places the surface has a milky, lustrous sheen.

Color: 2.5 YR 4.5/5 (Red) to 10.0 R 4.5/5 (Red). The range is narrow and quite readily distinguishable from Conchas Orange.

Comment: This type has been named from the site of Río Blanco in the Department of Quiche. In 1946 A. Ledyard Smith made a surface collection at the site which was later deposited as Lot E–86 in the *MNAE*. This lot includes material pertaining to the Formative through the Post-Classic, although the former predominates (Smith, A. L., 1955). Among the Formative sherds, most are of an orange slip and are strikingly similar in surface qualities to an almost complete vessel and a sherd at La Victoria. At the suggestion of E. M. Shook these sherds were examined in detail, and it was soon apparent that they constituted a rather well-marked type which I have named Río Blanco Orange, since that site is either the origin point, or very near it, for that kind of pottery. In paste, surface features (including double-slipping and the milky sheen), slip color, and decoration the Río Blanco sherds from both sites are indistinguishable. As regards the appearance of the type at La Vic-

toria, where they represent a tiny minority of Conchas sherds, it may be assumed to be the result of trade with the Río Blanco region of Quiche. Chronologically, it should be noted that Lot E–86 also includes Utatlan ware along with a number of black or brownish-black monochrome sherds which Gareth Lowe informs me closely resemble Formative ceramics at the site of Santa Rosa, on the other side of the Chiapas frontier. Moreover, a few Río Blanco Orange sherds from the type site seem to be of the "Chicanel" kind, with wide, everted rims.

Shapes (at La Victoria only):

Wide-mouthed jar (fig. 33, *b*)

Form: subglobular jar with low, somewhat constricted collar. Base presumably flat and unsupported.

Dimensions: rim diameter 13 centimeters. Body diameter circa 20–22 centimeters. Wall thickness .5–.7 centimeter. Height unknown.

Decoration: single broad and shallow pre-slip horizontal groove below rim on exterior. Face of animal, possibly toad or frog, modeled on body with paws and brow lines indicated by shallow, pre-slip grooves.

Comparative material: Kaminaljuyu, Majadas phase (*MNAE* Coll.), from cache of 73 vessels in Mound C–III–6, a necked jar with unbridged spout, identical "*zapo*"-like face and grooved paws, although latter slightly more schematized.

Dish or deep vessel, outflaring sides (fig. 33, *a*)

Form: vessel of which height unknown, sides moderately outflaring, somewhat thickened on rim exterior, form of base unknown.

Dimensions: rim diameter circa 25 centimeters. Wall thickness .7 centimeter.

Decoration: three shallow, pre-slip grooves placed horizontally on exterior.

Comparative material: Río Blanco (*MNAE* Coll.), dishes and bowls of apparently similar form in Río Blanco Orange, identical in rim profile and horizontal grooving on exteriors. These vessels have outflaring sides but somewhat convex bases.

CONCHAS FINE WHITE-TO-BUFF
(Conchas 2)

Paste: hard, and extremely fine. Temper consists of fine crystal ash. Dark gray to black cores, rest of paste to exterior light gray to fairly pure white.

Surface: possibly some surfaces slipped, although this hard to determine. Some show definite application of white or cream-colored slip. Finely burnished on one or both surfaces, depending on shape.

Color: range from fairly clear white through 10.0 YR 8/4 (Very Pale Brown) to 10.0 YR 6/3 (Pale Brown).

Comparative material: *Kaminaljuyu* (*MNAE* Coll.), fine-paste white monochromes of the Las Charcas phase so closely resemble Conchas Fine White-to-buff in practically all features that it would be tempting to group them into a single type. These resemblances include fineness of the paste, presence of dark gray or black cores, surface qualities, and color range. Conchas shapes of this type, however, are almost miniature, but it does seem possible that these little vessels were traded down from the highlands as baubles for the lowlanders along the Pacific Coast.

Shapes:

Neckless jars and incurved rim bowls (fig. 36, *b*, *c*)

Form: small neckless jars or convex-sided constricted bowls. Bases flat and unsupported.

Dimensions: inner rim diameters 3–19 centimeters, average 10 centimeters. Body diameters 8–21 centimeters, average 15 centimeters. Height unknown. Wall thickness .7–1.1 centimeters, average .8 centimeter.

Surface: almost always burnished on both surfaces, but possibly unslipped.

Decoration: horizontal, post-slip indented groove sometimes placed 1.5–2.5 centimeters below rim on exterior.

Dishes, outflaring sides (fig. 36, *a*)

Form: dishes with flat, unsupported bases, sides outflaring, rims plain.

Dimensions: rim diameters 13–26 centimeters, average 18 centimeters. Height unknown. Wall thickness .6–.8 centimeter, average .7 centimeter.

Surface: possibly slipped. All surfaces well-burnished.

Decoration: exteriors usually have crude, post-burnish incised lines in somewhat angular

designs (fragments too small to make out whole designs), combined with shallow excising on one vessel.

Simple silhouette bowls (fig. 36, *d*, *e*)

Form: open bowls with flat, unsupported bases. One early fragment shows an eccentric rim tab.

Dimensions (one example): rim diameter 34 centimeters. Probably not more than 5 centimeters high. Wall thickness .7 centimeter.

Surface: one interior shows that thick white slip was applied, but not to exterior. All surfaces burnished.

Decoration: eccentric rim tab on one fragment, with deep sharp grooves cut into upper surface after burnishing.

Cuspidors (fig. 36, *f*)

Form (based on two fragments): composite silhouette bowls with outflaring sides meeting a convex-walled, incurving bottom. Bases presumably flat and unsupported. Rims slightly beveled on the outer edge.

Dimensions: one rim diameter 18 centimeters. One body diameter (at bottom), 26 centimeters. Wall thickness .6–.8 centimeter, average .7 centimeter.

Surface: burnished and possibly slipped on all surfaces.

Decoration: wall exterior has post-burnish incising in rectilinear designs.

CONCHAS FINE RED-ON-CREAM (Conchas 2)

Paste: hard, extremely fine in texture. Fine crystal ash temper. Dark gray to black cores, rest of paste white to light cream in color.

Surface: apparently some surfaces slipped cream, while other cream surfaces unslipped. Red slip applied on all or part of one surface or rim. All surfaces with exception of a few interiors well burnished.

Color: cream ranges from a fairly clear white to 10.0 YR 7.5/4–7.5/5 (Very Pale Brown). Red is usually 10.0 R 4/6 (Red).

Comparative material: in all gross macroscopic features, this type is indistinguishable and, in practice, unsortable, from the fine red-on-cream pottery of the Las Charcas phase in the Valley of Guatemala. It might be premature to suggest the Guatemala City area as the actual locus of manufacture for Conchas Fine Red-on-cream, and yet it must be realized that ceramics with these paste and slip features are far more typical of Las Charcas than of Conchas. Microscopic analysis of temper qualities would possibly decide whether this type actually was produced by the Las Charcas potters and traded down to the coast. The problem, when handled on the technological level, should include an analysis of the closely related Conchas Fine White-to-buff, which probably is no more than Conchas Fine Red-on-cream without the red. Both these types are strongly contrasted with all other ceramic fabrics at La Victoria and a foreign origin would not be unlikely.

Shapes:

Small neckless jars (fig. 36, *j*)

Form: neckless jars, globular to subglobular in shape. Bases probably flat and unsupported.

Dimensions: inner rim diameters 8–10 centimeters, average 9 centimeters. Body diameters 10–15 centimeters, average 13 centimeters. Height unknown. Wall thickness .5–.9 centimeter, average .7 centimeter.

Surface: most appear slipped cream on all surfaces, with red slip applied to entire exterior on some and to band along rim on others. Usually entire vessel burnished, although a few interiors are unslipped and unburnished.

Decoration: red slip application only.

Necked jars (fig. 36, *i*)

Form: small jars with wide, straight necks of medium height, plain rims. Bases presumably flat and unsupported.

Dimensions (one fragment): rim diameter 8 centimeters. Body diameter 9 centimeters. Height unknown. Wall thickness .7 centimeter.

Surface: perhaps unslipped. Red slip applied in outline-incised zones on body, then exterior and neck interior burnished.

Decoration: horizontal incised line below rim on exterior. Crude outline-incising of red-zoned areas on body.

Dishes, outflaring sides (fig. 36, *g*)

Form: small dishes with outflaring sides. Rims plain or slightly beveled on exterior. Bases presumably flat and unsupported.

Dimensions: rim diameters 12–21 centi-

meters, average 16 centimeters. Height unknown. Wall thickness .6–1.2 centimeters, average .9 centimeter.

Surface: cream areas probably unslipped. Red slip applied in zones, either below rim on exterior or on interior, whole then burnished.

Decoration: red zoning above mentioned; deep, pre-slip groove on some examples placed horizontally below rim exterior above red-zoned areas. Interior zoning crudely outline-incised.

Simple silhouette bowls (fig. 36, *h*)

Form: open to somewhat incurving bowls with plain rims and presumably flat and unsupported bases.

Dimensions: rim diameters 17–32 centimeters, average 25 centimeters. Height unknown. Wall thickness .5–.9 centimeter, average .7 centimeter.

Surface: apparently all surfaces slipped cream, red slip applied to all or part of one surface or rim. All surfaces burnished.

Decoration: deep, pre-slip grooved line often found below rim on exterior, enclosing red zone. Amount of red zoning variable, sometimes only on top of the rim, sometimes entire interior or exterior red.

Comparative material: Kaminaljuyu (*MNAE* Coll.), certain sherds of the Las Charcas phase from pits are identical in form, paste, color range, and decoration to Conchas Red-on-cream sherds of this shape. E. M. Shook informs me that, barring microscopic or spectroscopic paste analysis, the La Victoria examples are indistinguishable from those of Las Charcas. As stated above, it might be necessary some day to group both lots into a single type.

Special Decorative Techniques of the Conchas Phase (Tables 4–6)

Negative painting (fig. 53, *k*)

A very small number of Conchas White-to-buff sherds have surfaces which have obviously been decorated by a negative technique. The process may be reconstructed with some accuracy. The vessel was first completed and fired, resulting in the typical Conchas White-to-buff surface. Then, the areas to be left light were covered with a resist substance which would not run off when the vessel was reheated. Wax or resin would have been impossible, so that clay would be about the only possible resist material. Clay resist has been successfully used by Robert Sonin in duplicating Paracas negative pottery. After the clay had been painted on and thoroughly dried, the vessel was inverted and thoroughly smoked in a smothered fire, darkening the uncoated areas of the exterior, but leaving the interior, to which the smoke could not gain access, the original light color. Afterwards, the vessel was cleaned off, and the clay removed from the resist areas. Most often, the resist was so applied as to surround rectilinear and curvilinear areas which would then be darkened, resulting at times in the appearance of actual application of a darker paint on the original slip. Careful examination of these sherds shows that no other slip is present. Vessels so treated are dishes with outflaring sides and barrel-shaped jars. The white zone on the exterior of a Conchas Red-and-white cuspidor shows what seems to be the same resist decoration, in parallel diagonal stripes, all around the vessel. This type of negative resist is definitely present in Conchas 2, and may have been practised in Conchas 1.

Another kind of resist technique has evidently been utilized on some Conchas Orange vessels of the Conchas 2 subphase. Splotches and amorphous streaks of yellowish color appear on the surface, which itself is generally darker orange. This is the type known as "cloudy Usulután," and its distribution and possible method of production have been reviewed by Shook and Kidder (1952, p. 100).

It is believed that the type of negative resist present on Conchas White-to-buff and Conchas Red-and-white is the earliest negative yet known in Middle America. In the late Formative, negative painting is widely distributed in the area, and is especially associated with orange monochrome pottery.

Excising (fig. 52, *j–m*)

A decorative feature characteristic of Conchas 1 pottery, and usually confined to the exteriors of Ocós Black dishes with outflaring sides, is the scraping away of parts of the surface after slipping and burnishing but before firing, so as to reveal the clay beneath. Excised

areas were gradually filled or rubbed with red pigment (probably after firing) to increase the contrast with the slipped surface.

Fingernail impression

In Conchas, a small number of sherds were decorated by half-moon shaped, multiple impressions of the tips of fingernails, a technique also known in the Ocós phase. These impressions were made after slipping, and the areas on which they occur were never burnished. All known examples appear to be sherds from the bottoms of composite silhouette bowls in Ocós Black, Victoria Coarse (not certain), and possibly Conchas Streaky Brown-black. The exteriors only were so treated.

Comparative material: Uaxactún (*MNAE* Coll.), Lots X–8 and X–37 have very similar fingernail-impressed sherds from composite silhouette bowls. X–8 is identified in the catalogue as from Group A, Structure A–V, "Pre-Vault" or Chicanel phase. Lot X–37 is also from Structure A–V, "Phase Ic (Tzakol?)."

Random stick impression (fig. 53, *b*)

This decoration is identical to the same in Ocós, and is found only on three Ocós Gray sherds, two of which appear to be simple silhouette bowls with the other perhaps a neckless jar.

Broad-line burnishing (figs. 52, *n*, *o*; 59, *f*)

Known elsewhere as "pattern burnishing" or occasionally "stick burnishing," the technique involves the use of a smooth, flat object like a pebble, bone, or stick to produce on an unburnished surface broad, burnished lines in a crisscrossing pattern. This kind of decoration appears to be a minor decorative trait confined to Conchas 1 and is usually found only on either surface of the bases of Ocós Black dishes with flaring sides. A few Conchas Brown Unburnished heavy neckless jars have such decoration on the exterior, but the exact design produced is unknown.

Comparative material: Las Charcas (*MNAE* Coll.), pattern or broad-line burnishing a frequently encountered trait. *Yucatan*, Early Formative ceramics from Maní cenote (Brainerd, 1958, p. 48), broad-line burnishing on Pattern-burnished Ware.

THE CRUCERO PHASE

General Characteristics

In the cultural materials in the top levels of La Victoria, a good deal of plumbate pottery appears along with a number of sherds which clearly do not fit typologically into the Late Classic to which San Juan Plumbate belongs. An analysis of this latter group revealed that it must represent a late Formative occupation of the site, following on the heels of the Conchas phase. Accordingly, this culled-out material was placed within a new phase, Crucero, which, it must be admitted, has very little stratigraphic justification other than its non-occurrence in deeper levels.

The overwhelming majority of sherds which have been placed in this phase are Conchas Orange or a closely related type, Crucero Red-on-orange. The most common shape is the S–Z angle bowl, usually with dimpled base, followed by the simple silhouette bowl. Other Conchas types are probably not manufactured any longer, although this would be hard to prove until the discovery of a more-or-less "pure" Crucero deposit. A few fragments of buff jars with necks seem to belong to this phase. These have been counted and described as Ocós Buff, mainly because body sherds from such vessels could not be sorted with confidence from redeposited sherds of the same type from the Ocós phase. Since there appears to be no continuity in the manufacture of the type (no Ocós Buff vessels are known for the Conchas phase), I am not happy with such an assignment. A single fragment of a Conchas White-to-buff vessel lid has been relegated to Crucero on the grounds that it was found in Crucero-Marcos deposits and is a form unknown in the Conchas phase. One sherd of a labial-flanged bowl is surely Crucero, as the form is a good chronological marker for the late Formative in other areas. In Conchas Orange, other shapes of less significance are deep jars or vases and small neckless jars.

Decorative techniques emphasize post-slip incised crosshatching. Resist decoration (i.e., Usulután) is absent, as are vessel supports.

Crucero, then, should be taken with a grain of salt as a bona fide phase, having only the sort of typological standing that has been given to a phase like Matzanel in the Uaxactún sequence—not well isolated in the excavations, but certainly something different from other materials in the same levels. It seems to have been a very brief occupation of La Victoria in the late Formative, directly following Conchas 2.

Ceramic Types of the Crucero Phase

OCÓS BUFF

Shapes:

Necked jars (fig. 36, *m*)

Form: thin-walled jars with fairly short and slightly outflaring necks. Form of rest of vessel unknown. Dimensions not taken.

Surface: possibly slipped. Burnished on both surfaces of neck.

Decoration: crudely incised on neck exteriors after burnishing with designs of parallel lines and cross-hatching.

CONCHAS WHITE-TO-BUFF

Shapes:

Vessel lid (fig. 36, *l*)

Form: highly uncertain, but appears to have been a round cover of stepped profile.

Dimensions: diameter no less than 28 centimeters. Wall thickness .8 centimeter.

Surface: slipped on both surfaces, but burnished only on exterior.

Decoration: post-burnish incised lines in crosshatched designs resembling those on Ocós Buff necked jars of the Crucero phase.

Comment: This fragment may actually belong to the Conchas phase.

CONCHAS ORANGE

Shapes:

Small neckless jars (fig. 36, *p*)

Form: small, globular to subglobular jars, bases presumably flat or perhaps dimpled. Usually a horizontal depressed band just below rim on exterior.

Dimensions: rim diameters 11–14 centimeters, average 13 centimeters. Body diameters 22–24 centimeters, average 23 centimeters. Wall thickness .6–.8 centimeter, average .7 centimeter.

Surface: most are slipped on all surfaces, some only on exterior. All slipped surfaces are burnished. Slips are thick, and crazed or crackly.

Decoration: none.

Deep jars, flaring sides (fig. 36, *t*)

Form: deep vessels with unrestricted orifices, sides slight flaring, especially toward top, bases presumably flat and unsupported. Rims sometimes thickened on exterior, usually with depressed horizontal band below.

Dimensions: rim diameters 21–30 centimeters, average 26 centimeters. Wall thickness .7–1.0 centimeter, average .8 centimeter. Height unknown.

Surface: slipped and burnished on all surfaces.

Decoration: none.

Bowls, S–Z angle (fig. 36, *r*, *s*, *u*)

Form: composite silhouette bowls of which the sides are concave, meeting a round convex bottom. The juncture of sides and bottom may be gently rounded in section (S-angle) or sharp to flanged (Z-angle). Bases dimpled.

Dimensions: rim diameters 16–39 centimeters, average 29 centimeters. Estimated height 5–10 centimeters, average 8 centimeters. Wall thickness .6–1.0 centimeter, average .8 centimeter.

Surface: prior to slipping, vessels smoothed when wet with horizontal motion of coarse fibers, producing slight striations resembling effect of wheel markings. All surfaces coated with thick, crackly slip, burnished.

Decoration: upper surface of one flattened rim incised when slip half-dry in rectilinear designs. Another has rectilinear, post-slip incised design on exterior of side. Rest plain.

Comment: this kind of vessel is identical in shape to S–Z angle bowls in Crucero Red-on-orange.

Comparative material: S–Z angle bowls have such a wide distribution in the late Formative

of Middle America that it would be meaningless to enumerate all known occurrences. Only the more significant distributions follow. *Uaxactún*, Chicanel phase (*RES*, fig. 16, *f*, *4*), identical Z-angle bowls in red (i.e., my orange) monochrome; (*RES*, fig. 70, *a*, 39–40), S-angle bowls in red monochrome. *Kaminaljuyu*, Miraflores phase (Shook and Kidder, 1952, fig. 42), S-angle bowls in Usulután orange. Arenal phase (*MNAE* Coll., Lot C–33 *b*), Z-angle bowls, usually with wavy Usulután decoration. *Late Zacatenco* (Vaillant, 1930, pl. 8, *a*, *g*, *k*, *n*), various S–Z angle bowls in black, red, or brown monochrome. A local occurrence of the shape is found in sites to the north of La Victoria such as El Sitio. These sites will be discussed in a later section of the report. At any rate, such bowls seem to be a fairly good horizon marker for the late Formative.

Small bowls, indented Z angle (fig. 36, *n*)

Form: small composite silhouette bowls in which the exteriorly thickened angle has been thumb-indented at intervals around the circumference. Bases probably flat or dimpled, unsupported.

Dimensions: rim diameters 9–12 centimeters, average 11 centimeters. Estimated height 2.5–5.0 centimeters. Wall thickness .5–.6 centimeter.

Surface: all surfaces have thick, crazed slip, and are burnished.

Decoration: none, excepting the above-mentioned indenting.

Simple silhouette bowls (grouped with same shape in Crucero Red-on-Orange; figs. 36, *q*; 37, *d*, *f*)

Form: bowls with plain, rounded rims, sometimes slightly incurving. Bases probably flat and unsupported.

Dimensions: diameters of rim 26–40 centimeters, average 31 centimeters. Height unknown. Wall thickness .4–.8 centimeter, average .7 centimeter.

Surface: thick, crackled, burnished slip on all surfaces.

Decoration: many surfaces badly worn, but some, perhaps most, have red horizontal band on rim and about 1.5 centimeters below it on interior. Exteriors often entirely red or have wide band of red below rim. On exteriors below rim usually a red band enclosed by one or more post-burnish, incised parallel lines in designs of crosshatched triangles, diagonals, etc.

Comment: hard to distinguish between Conchas Orange and Crucero Red-on-orange in this shape because sherds which might have once had a red slip are badly worn. Some, however, seem to be purely Conchas Orange.

Comparative material: Naltic (Piña Chan Coll. in *INAH*), sherd of unknown form in orange monochrome with identical design of hachured triangles on exterior.

CRUCERO RED-ON-ORANGE

Paste: fairly hard. Crystal ash temper. Usually gray to dark gray cores, color of rest of paste usually 7.5 YR 5/5 (Strong Brown), although ranges to 2.5 YR 5/6 (Red).

Surface: some show wheel-like striations resulting from pre-slip wiping. All surfaces thickly slipped in orange, then red slip applied in areas over it. All surfaces burnished. Slips crazed to crackly.

Color: orange ranges from 2.5 YR 5/6 (Red) to 2.5 YR 6/6 (Light Red) and 5.0 YR 6/6 (Reddish Yellow). Red range is from 10.0 R 5/8 (Red), which is more usual, to 2.5 YR 5/8 (Red).

Comment: In many respects, this type would seem to be merely Conchas Orange with the application of a red slip in areas. However, since it clearly is later than the Conchas phase and is known in vessel shapes which are probably late Formative, as a tentative type it has meaning chronologically.

Shapes:

Simple silhouette bowls (see above, under Conchas Orange)

Bowls, S–Z angle (figs. 9; 37, *a–c*)

Form: composite silhouette bowls with concave sides meeting convex bottoms in a gentle S-angle or sharper Z-angle. Bases probably dimpled.

Dimensions: rim diameters 26–34 centimeters, average 30 centimeters. Estimated height 7–8 centimeters. Wall thickness .8–.9 centimeter, average .8 centimeter.

Decoration: all have horizontal red band on

rim extending down to interior. Some continue this on exterior to meet body angle.

Comparative material: see same shape under Conchas Orange.

Bowls, lateral flange (fig. 37, *e*)

Form: wide, shallow, simple silhouette bowls with plain rims, but with eccentric flange below rim exterior. Bases presumably flat or dimpled, unsupported.

Dimensions (one fragment): rim diameter circa 28 centimeters. Wall thickness 1.0 centimeter.

Decoration: rim from 1.2 centimeters on interior below lip over to top of flange on exterior slipped red. Another band or some of red begins 1.7 centimeters below lip on interior.

Comparative material: This is another good time marker for the late Formative, east of the Isthmus of Tehuantepec. *Chiapa de Corzo* (*NWAF* Coll.), Chiapa V characterized by red-on-buff bowls with lateral flanges, often striped on interior (these closely resemble bowls from El Jobo in San Marcos). *Finca Arizona* (Shook, 1945, fig. 3, *b*, and 4, *c*), pottery and stone vessels with lateral flanges. *Sta. Lucía Cotzumalhuapa* (Thompson, 1948, fig. 60), sherds from probably late Formative phase identical in form to Crucero example. *Kaminaljuyu* (*MNAE* Coll.), lateral flanges typical of sequence from Providencia on; Miraflores phase (Shook and Kidder, 1952, figs. 48, *a*, 49, 50, *c*), lateral flanges on chlorite schist and marble bowls. Arenal phase (*MNAE* Coll., Lot C–33 *a*), orange-red monochrome labial-flange bowl. *Uaxactún*, Chicanel phase (*RES*, fig. 16, *f*, *3*), lateral flange dish in red ware; lateral and labial flanges, as elsewhere, intergrade. From same phase, *RES*, fig. 70, *a* 40–51 show same form in red, black, or variegated monochrome. *San José I* (Thompson, 1939, fig. 27), same form in red monochrome. *Copán*, Archaic phase (Longyear, 1952), lateral flanged bowl in "burnished ware."

THE MARCOS PHASE

General Characteristics

There is little doubt that there was a late re-occupation of La Victoria following a long hiatus. No early Classic pottery or artifacts have been identified in the large quantity of material excavated, so there was certainly a span of time during which the site was abandoned and forgotten. In the uppermost levels was found a quantity of San Juan Plumbate mixed with redeposited Ocós and Conchas sherds and with what was isolated as Crucero material. Since San Juan Plumbate has been identified as an early type of plumbate and placed in the Late Classic by Thompson (1948), it is evident that there was a Late Classic phase at La Victoria. This has been designated Marcos, from the name of the department.

The same problem confronts us with Marcos as with Crucero. Other than San Juan Plumbate, which is extremely easy to identify, what other types and varieties from these mixed deposits at the top of the site belong in this Late Classic phase? There is no easy answer, and any phase tags put on non-Formative-looking material other than plumbate must be regarded as strictly tentative. In many cases it would really be impossible to make a complete separation of Crucero and Marcos, especially as the samples for each are so small in comparison with the extensive Ocós and Conchas collections from deeper levels within the site.

San Juan Plumbate, a type well-defined by Thompson (1948) from excavations further east on the Pacific coast, is the ceramic marker for the Marcos phase. Plumbate sherds outnumber those of other identified Marcos types, and one can state with confidence that this was a utility and not a luxury ware at La Victoria, as at other sites in the Guatemala-Chiapas frontier region. The shapes are those already well-known for the type elsewhere: small necked jars, large open bowls with thickened or everted rims and dimpled bases, cylindrical and barrel-shaped jars, and bowls with horizontal ribbing. Certain shapes in Victoria Coarse, which increases markedly in levels in which San Juan Plumbate is found, have been assigned to Marcos on typological grounds, although some of these might well belong to Crucero. These shapes include jars with tall necks, handled jars, bowls with incurved rims

(these are surely Marcos), and very thin, shallow bowls or covers.

Two tiny fragments, perhaps from jars, of a red pottery with white-slipped zones through which incised designs have been cut, are related in appearance to certain other ceramic categories at Sta. Lucía Cotzumalhuapa and at Tiquisate. A few sherds of a red-on-orangey buff pottery have also been relegated to Marcos, although the possible occurrence of one of Usulután resist might indicate a Crucero placement; neither these sherds, nor the abovementioned, make up a large enough sample to ever constitute ceramic types.

The absence of polychrome pottery is a striking characteristic of the Marcos phase at La Victoria, but is a feature of Late Classic phases at other south coast sites. Possibly such existed as grave offerings or caches, but none such were found at La Victoria.

Ceramic Types of the Marcos Phase

VICTORIA COARSE

Shapes:

Necked jars (fig. 38, *d–i*)

Form: large storage jars. Necks fairly tall and wide, straight to outflaring. Body and base form unknown, but definitely unsupported. Necks usually plain, but some have low horizontal ribbing and two have thickened flanges below rim exterior.

Dimensions (necks only): rim diameters 23–30 centimeters, average 28 centimeters. Rim height 2.5–6.0 centimeters, average 4.3 centimeters. Wall thickness .7–1.2 centimeters, average 1.0 centimeter.

Surface: most appear to have been merely smoothed with hand when wet, but one badly weathered sherd may have been burnished.

Decoration: none.

Comparative material: Sta. Lucía Cotzumalhuapa (Thompson, 1948, figs. 31 and 41), unslipped storage jars with wide and/or tall necks found in both San Francisco and San Juan phases. This kind of vessel, however, has been so little studied in its distribution that little can now be said.

Jars, handled (fig. 38, *a*)

Form: one of two known handles attached above to a wide but constricted mouth, below to a carinated shoulder; vertical strap type. Other handle too worn for study.

Dimensions: diameters at shoulder break of jar, 14 centimeters. Wall thickness .5 centimeter.

Surface: much worn, but possibly lightly burnished.

Decoration: none.

Bowls, incurved rims (fig. 38, *c*)

Form: bowls with incurved rims which flattened or grooved toward interior and sometimes thickened. Shape of rest of body unknown, but bases unsupported.

Dimensions: outer rim diameters 24–42 centimeters, average 35 centimeters. Height unknown. Wall thickness .5–.8 centimeter, average .6 centimeter.

Surface: most are very weathered, but show some cursory attempt at smoothing with a tool which gives half-burnished effect.

Decoration: none.

Comparative material: Tiquisate (*MNAE* Coll.), form very common in late Classic material excavated by E. M. Shook. *Sta. Lucía Cotzumalhuapa* (Thompson, 1948, fig. 30), form typical of San Juan phase, unslipped.

Shallow bowls or covers (fig. 38, *b*)

Form: very thin, shallow, simple silhouette bowls or vessel covers, rims usually externally thickened into flat bolsters. Only rim fragments known.

Dimensions: rim diameters 31–40 centimeters, average 37 centimeters. Wall thickness .3–.4 centimeter, average .4 centimeter.

Surface: unslipped, but badly weathered. Most appear unburnished, but concave surface of one example possibly burnished. Convex surfaces left in rough condition.

Decoration: none.

Comment: From their thinness, it seems unlikely that they could have been used as containers of any sort. Consequently, it is conceivable that they could have functioned as vessel covers.

SAN JUAN PLUMBATE

The standard descriptions of this type are found in Thompson (1948, description of fig. 55) and Shepard (1948, pp. 91–99, 124–25). In paste qualities, surface, etc., the La Victoria collection differs in no major way from these

descriptions. The Marcos examples are somewhat more numerous than those from other published collections, however, and it would perhaps be of use to give the color range of these sherds.

Color: There are essentially three color groups: a red, an orange, and a lead. Lead and orange are linked, as the former often have splotches of orange. Usually vessels which are orange on the exterior have lead interiors. It is suggested that this lead-orange effect is the result of firing conditions—complete oxidization producing the oranges and incomplete oxidization or reduction producing the leads. This can be seen on small necked jars which are orange on the exterior and halfway down interior of the neck, but lead on the rest of the interior where presumably the available oxygen was quickly used up. Sherds with lead exteriors are often deep black on the interior. Some thick lead slips are highly iridescent. Reds range from 2.5 YR 3.5/6 (Red) through 2.5 YR 4/7 (Red) to 2.5 YR 4.5/8 (Red), the latter being the most frequent. Oranges, which are most common, range from 2.5 YR 6/7 (Light Red) through 2.5 YR 6/8 (Light Red) (most frequent) to 7.5 YR 7/5 (Reddish Yellow). The latter stands at the pale end of the range and is almost buff in appearance. Leads are too blue for the earth colors of the Munsell chart, but range between a slate color and a greenish-brown. A frequency count of unweathered San Juan Plumbate sherds by color is as follows:

	Reds	*Oranges*	*Leads*	*Lead + Orange*	*Total*
	13	64	10	21	108
Per Cent	12.0	59.3	9.3	19.4	100.0

One might therefore make a guess that, at least at La Victoria, there are only two kinds of San Juan Plumbate slips: one, a slip which fires orange or lead or both, depending on conditions; and the other a red-firing slip.

Comparative material: The sites at which San Juan Plumbate occurs are legion, from the Pacific coast up into the Chiapas and Guatemala highlands, and down the Motagua Valley. Along the Chiapas-Guatemala frontier, however, San Juan Plumbate reaches a frequency as to constitute the majority of sherds at some sites. This is especially true of sites down on the Pacific plain. Shook's 1948 reconnaissance showed San Juan Plumbate sherds scattered over the surface of sites as far south as La Victoria. More recent excavations like those of Dutton (1958) and myself have shown the predominance of the type in the Late Classic in the area. The occasional finds of even whole San Juan Plumbate vessels in the area to the south of Ayutla suggest that the actual producers of this pottery lived not too far from La Victoria. For example, the destruction in 1958 of a mound on the Santa Clara farm for banana irrigation resulted in the discovery of dozens of whole San Juan Plumbate vessels, most of which show signs of everyday use. Shapes which elsewhere would be made in unslipped ware are here slipped in plumbate (*MNAE* Coll.).

Shapes:

Small necked jars (fig. 37, *p*)

Form: jars with tall and narrow or shorter and somewhat wider necks, body shape unknown but probably subglobular. Form of base probably flat or dimpled, unsupported.

Dimensions: rim diameters 8–10 centimeters, average 9 centimeters. Neck height 5 to at least 8 centimeters. Wall thickness .5–.6 centimeter, average .6 centimeter.

Decoration: none known, but perhaps bodies decorated.

Wide-mouthed jars (fig. 37, *o*)

Form: squat jars with wide necks which are usually somewhat insloping, although some straight or flaring. Neck exteriors generally ribbed horizontally. Bases probably dimpled.

Dimensions: rim diameters 20–26 centimeters, average 23 centimeters. Neck height 2.5–4.0 centimeters, average 3.3 centimeters. Wall thickness .4–.6 centimeter, average .5 centimeter.

Decoration: shoulders just below break with neck have multiple, diagonal parallel lines sliced out on bevel with chisel-like tool before slipping. These are perhaps part of horizontal chevron designs.

Comparative material: Huehuetan (Piña Chan Coll. in *INAH*), identical form and design on one San Juan Plumbate rim sherd, but lacks neck ribbing. *Sta. Lucía Cotzumalhuapa* (Thompson, 1948, fig. 55), same form with

design of undulating parallel lines, in San Juan Plumbate.

Barrel-shaped jars (fig. 37, *j*)

Form: jars with somewhat convex sides and slightly constricted orifices. Base form unknown.

Dimensions: rim diameter 14 centimeters. Estimated body diameter not more than 16–17 centimeters. Height unknown. Wall thickness .3–.4 centimeter.

Decoration: one and possibly more decorative bands on exterior starting 2 centimeters below rim. Design of parallel diagonal lines forms triangle-like figurines, enclosed above and below by double parallel-lines. These lines done by pre-slip beveled grooving with chisel-like implement.

Cylindrical jars (fig. 37, *k*, *q*)

Form: cylindrical vessels with plain rims. Bases flat or perhaps slightly rounded with central dimple (analogy of Santa Clara vessels). Sides straight to barely convex. No supports.

Dimensions: one rim diameter 9 centimeters. One base diameter 14 centimeters. Wall thickness .3–.4 centimeter. Height unknown.

Decoration: single pre-slip beveled groove, carved out from above, placed horizontally on one example 4.5 centimeters below rim.

Comparative material: very similar to San Juan Plumbate cylinders in Santa Clara cache.

Bowls, thickened rims (fig. 37, *m*)

Form: composite silhouette bowls, in which slight convex sides meet more strongly convex bottoms at an angle. Rims externally thickened to form ridge which may be rounded. Bases unsupported, presumably flat or dimpled.

Dimensions: inner rim diameters 20–22 centimeters, average 22 centimeters. Height unknown. Wall thickness .3–.6 centimeter, average .5 centimeter.

Decoration: none.

Bowls, everted rims (fig. 37, *i*)

Form: wide bowls, believed on analogy with Santa Clara examples to be composite like the preceding shape. Rims everted and thickened with rounded lip. Base flat or dimpled, unsupported.

Dimensions: rim diameters (two examples) 24 and 36 centimeters. Wall thickness .4 and .7 centimeter.

Decoration: none.

Bowls, horizontal ribbing (fig. 37, *n*)

Form: composite silhouette bowls. Sides somewhat concave and flaring and deeply carved on the exterior to produce horizontal ribbing. Rims plain and rounded in section. Bases unsupported, presumably flat or dimpled.

Dimensions: rim diameters 19–25 centimeters, average 22 centimeters. Height unknown. Wall thickness on sides .5–.6 centimeter, average .5 centimeter. Bottom thinner (.3 centimeter).

Decoration: ribbing consists of three evenly spaced grooves sliced out of sides before slip applied.

MISCELLANEOUS

Simple silhouette bowls (fig. 37, *g*, *h*)

Form: open bowls with plain rims. Form of bases unknown (but no annular bases found).

Dimensions: rim diameters 36–37 centimeters. Wall thickness .8–1.1 centimeters, average 1.0 centimeter.

Paste: fairly hard. Sand or crystal ash temper. Cores gray. Color 10.0 YR 8/3 (Very Pale Brown) to 2.5 YR 5.5/3 (Light Reddish Brown).

Surface: very worn, but all surfaces appear to have been slipped in separate areas of red and orangey-buff, then burnished.

Color: red—10.0 R 4/6 (Red); orangey buff —5.0 YR 6.5/8 (Reddish Yellow).

Decoration: red applied on rim and on inside of rim, over to exterior 2.5–4.5 centimeters from lip. Orangey-buff applied on remaining exterior and interior areas. One vessel (fig. 37, *h*) had parallel curvilinear lines of darker orangey-buff separated by lighter lines—uncertain whether Usulután or positive painting.

Jars (?)

Form: only two small sherds, but convex on the exterior and possibly from barrel-shaped jars.

Dimensions: unknown.

Paste: fairly hard and fine. Crystal ash temper. Narrow gray-black cores.

Surface: thickly coated with a red crackly

slip on all surfaces, then white slip applied in zones on exterior. Both surfaces burnished.

Color: Red—2.5 YR 5/6 (Red); White—clear white to 7.5 YR 8/5 (Reddish Yellow).

Decoration: white bands have rectilinear and curvilinear designs of parallel lines incised with chisel-like tool, post-slip.

Comparative material: Sta. Lucía Cotzumalhuapa (Thompson, 1948, figs. 51–52), white ware and white-over-rose ware sherds of San Juan phase very similar.

Post-Classic Sherds

One sherd from a Tohil Plumbate jar (fig. 38, *l*) indicates a very brief occupation of the site during the early part of the Post-Classic, or at least that there was somebody living in the vicinity. Likewise, four sherds (fig. 38, *j, k*) from what were red-and-black-on-white vessels of the Chinautla or "horse polychrome" type implies an occupation of the area during Spanish contact times.

Identification of the Tohil example was confirmed verbally by Miss Anna O. Shepard, and appears to be part of a small necked effigy jar. To the north, in the coffee zone of today, Tajumulco (Dutton and Hobbs, 1943) was a well-known Tohil Plumbate site. Effigy plumbate vessels are somewhat rarer, however, down on the Pacific plain itself.

The four red-and-black-on-white fragments apparently came from large necked jars, thin-walled and with handles, of the type known from the contact period site of Chinautla, north of Guatemala City (*MNAE* Coll.). Dr. A. V. Kidder has termed this type "horse polychrome," as bones from that animal appeared in a burial associated with Chinautla pottery. The paste of the La Victoria examples is hard and quite fine, apparently with crystal ash temper with the typical Pacific coast inclusions of reddish chalcedonia. Interiors were unslipped and coarse, the exteriors being slipped white, painted with red and black stripes and dots, then burnished. The decoration consists of rather crude designs of red stripes with black outlines, the spaces between the lines filled with little dabs of black. One vessel had a modeled exterior, possibly a face, with a Dali-like moustache possibly placed below what looks like a nose. Red-and-black designs on a light background are known for the final period of aboriginal history from Mixco Viejo in the Guatemalan highlands as far south as Costa Rica (on "Alligator Ware"), and may constitute a vague sort of horizon marker on that time level.

Chapter VIII

FIGURINES

GENERAL REMARKS

AS YET, no really plausible reason has been offered for the vast number of hand-made figurines which are found deposited in Formative sites in Middle America. Séjourné (1952) has suggested, on the grounds that the peoples of the Formative knew nothing of the mystical polytheism and complex religious life of the supposedly more advanced later cultures of Middle America, that these little figurines are direct magical representations of the spirits of the crops, on the analogy of present-day Zapotec and Pueblo practice. It may well be true that this was their true function (although the weirder Tlatilco figurines point to more sophisticated and involved complexes). In this case, since highly advanced, calendrical societies *did* exist in the Formative, perhaps the figurine cult was representative of a folk stratum within Formative groups. This again seems unlikely, as the most advanced ceremonial center in all of the Formative, La Venta itself, which, by the nature of the surrounding terrain, could hardly have been inhabited by farmers, is stuffed with more or less typical hand-made figurines.

The overwhelming majority of Formative figurines everywhere are female, with neuter, androgynous, and male figurines appearing as a minority in a very few sites (La Venta is one of the few). Female pottery figurines appear in early farming societies in many parts of the world, in Neolithic Europe and the Middle East and in the Neolithic and Bronze Age of Baluchistan and the Indus Valley. The consensus of opinion seems everywhere to be that they represent "fertility goddesses" of a simple sort, and Séjourné's opinion would not be out of line with this. What do the non-female figurines then represent? And why are not female figurines at many Formative sites (La Victoria included) more clearly marked with the attributes of that sex? These unanswerable questions indicate that we do not know really much of anything about Formative religious practices, or even why at Tlatilco and Chupícuaro these little representations should be placed with the dead, but are not found in graves in most other areas.

Very little stress has been placed in most reports on the huge number of figurines which were produced at any one site. Some sort of a rough estimate can be made for the Conchas phase at La Victoria. The 1958 excavations took in 71 square meters of the site. A crude calculation of the living area of the site during the Conchas occupation (that is, the total of the areas under which house platforms probably exist) is around 6,700 square meters. That is, considering surface area only, about 1/95th of the site was actually excavated. From these excavations came 915 fragments (heads, bodies, legs, etc.) of Conchas figurines of the small variety (larger hollow ones were also produced). Taking the number of fragments into which one of these figurines was broken as 8, and this may be too many, these fragments may represent approximately 115 whole figurines. Multiplying this by 95, we arrive at a total estimate for the entire site of about 10,000 small Conchas figurines. If, as seems most likely, the Conchas phase endured about 500 years at the site, then 20 were produced each year; furthermore, taking the most reasonable guess for the total occupancy of La Victoria during this phase as 10 families or 80–100 persons, then each family had about two new figurines a year. Similar calculations for large, hollow Conchas figurines indicate that the entire village had only two or three new ones per year.

Whatever their intended purpose was at La Victoria, they, like all the pottery and everything else, were purposely and thoroughly smashed by the inhabitants, probably at

certain intervals during renewal ceremonies. In fact, a typical feature of almost all Conchas figurines is the willful battering of the mouth regions of the heads—obliterating the lips, teeth, and tongue. Perhaps this was to prevent them from speaking evil or to forestall other unfortunate consequences. Among the Maya of Succotz, in British Honduras, it still is the practice to avoid Formative figurine heads with punched eyes and open mouths, as evil winds emanate therefrom (Coe and Coe, 1951).

THE OCÓS PHASE

Altogether only 41 fragments of pottery figurines attributable to the Ocós phase were found at La Victoria (figs. 39, 40). The majority of them appear to belong to small, handmade female figurines. Most are made from a hard buff paste, although a few are remarkably soft and crumbly and gray-black in color. The bodies are generally burnished, the surface being natural buff in color and unslipped. Breasts are small and crudely fashioned. Most bodies are hollow toward the top, but the walls are very thick and poorly constructed. Heads were fastened by peglike projections which were pushed down onto the neck region of the bodies. The limbs of these figurines (fig. 39, *d*) are solid, crudely made, with the appendages almost shaped like elephant feet. Fingers and toes are indicated only by coarse grooving.

It is the treatment of the heads which distinguishes Ocós figurines most effectively from those of Conchas. The pupils of the eyes and sometimes the corners as well are formed by pinhole-size punching (Conchas faces have very large punched holes for pupils), set into a narrow oval or trough-shaped depression which is surrounded generally by well-marked ridges for the eyelids. These needle-sized pupils are a useful Ocós marker. Hair is indicated by a general appliqué which has been later roughened or grooved.

The subject matter, as already stated, is usually a woman. Some heads, however, exhibit caricature, such as the example with lumpy nose and protruding lower lip (fig. 39, *i*) which brings to mind certain drawings by Leonardo da Vinci. A head which may be part of a vessel shows the wrinkled and baggy face of a very old person (fig. 39, *e*). In the case of what definitely was an effigy lug on a vessel, the subject is an alligator's head, smiling in a very foolish and perhaps drunken fashion (fig. 40, *d*). Other forms include a bird with human arms (fig. 39, *a*) and other animal representations.

Body painting is apparently present on one particularly soft female figurine (fig. 39, *j*), as red paint has been applied to definite areas on the hair, eyes, nose, cheeks, and top of the shoulders. An isolated fragment of an arm has been carefully cord-marked, perhaps to suggest a woven textile of some sort. This is the only example to my knowledge of a cord-marked figurine in the New World.

Comparative material in other regions within Middle America is rare or non-existent. As stated above, female figurines are found almost everywhere in the Formative, but figurines specifically resembling those of Ocós are more difficult to find. An almost identical figurine head was, however, found in Pit 50 (i.e., Chiapa I) at Chiapa de Corzo (Dixon, 1959, fig. 53, *b*). This is also crude with pinhole-punched eyes, and closely resembles two Ocós examples. At Tlatilco, certain Type D figurines exhibit a vaguely similar treatment of the eyes, but in all other respects they are quite different.

A figurine which might possibly represent a transition to Conchas types is seen in figure 40, *f*. In construction it is hollow and open at the top, but seems too small to ever have been used as a container. Its form strangely resembles an Egyptian mummy, with feet and legs joined together, the long, spindly arms crossed in Osiris fashion, and a hieratic expression on the face. The eyes are somewhat transitional between the pinhole-pupil Ocós type and the larger Conchas eye. The workmanship appears slightly crude and uncertain. On the exterior and over the rim a short way into the interior a red slip (which may be the same as that used on Ocós Red Burnished) was applied and burnished. The color is 10.0 R 4/5 (Red). In cultural affiliation, this is either Ocós or Conchas 1, probably the former.

THE CONCHAS PHASE

(*Figs. 54–57*)

General Characteristics

There are basically two kinds of Conchas figurines: one is rather small, handmade, often but not always solid (although the heads are almost always so), while the other is much larger, perhaps as much as a foot or more high, always hollow, but also handmade. Almost all figurines are female, but without much stress on the characteristics of that sex, while a few are definitely sexless. The individuals are usually depicted as seated and leaning slightly forward, with the legs outspread in front of them, while the arms are bent at the elbow or else hang straight down by the sides. Some figurines are, however, standing (but, from the shape of the feet, they could never actually have stood by themselves). The hands are usually flexed, with the fingers indicated by grooves. The legs generally exhibit huge, fat upper portions or thighs, but are markedly slender below. The toes, indicated by parallel grooves, and front part of the foot are downwardly flexed. Some small, hollow figurines have hands shaped like flexed catcher's mitts which lack indications of fingers. Sexual organs are never depicted.

Conchas figurine heads can be divided into a number of contrasting types, but almost all share certain features. They practically always are made by a double-triangle-punch technique, that is, by first making both lateral sides of the eye by twice pushing into the wet clay a wedge- or oval-shaped tool, then punching it deeply in the center, leaving a round or perhaps flattened pupil. The latter is far larger than a typical Ocós pupil, and larger than in figurines from most other areas.

Dress and ornament on these figurines are quite standardized. While most individuals are depicted as nude, some show a wrap-around skirt or sarong. Rather fancy hair styles are sometimes present. The use of pottery ear spools is always indicated, but other decoration, such as necklaces, is rare. Footgear is totally absent.

Slipping and burnishing is sporadic. When present, the slip is Conchas White-to-buff. The large, hollow figurines are always so treated. However, color is often applied to various parts of the body and head in the form of a light wash. In many cases, it is believed that this indicates actual face and body painting. White-to-buff slipping on large, hollow figurine heads of the RE–1 type usually have the features emphasized by paints of different colors.

A variety of animals are represented by what sometimes are actual figurines but in other cases may be no more than *adornos*.

In general, Conchas figurines check very closely with the series at Chiapa de Corzo in the Chiapa II through Chiapa IV phases; in many cases, certain Conchas examples are indistinguishable from those of Chiapa de Corzo. Both sites emphasize naturalistic faces with large punched eyes and open mouths. There are also very close connections between Conchas and La Venta figurines, both in limb and body features and in facial treatment. Further similarities, in some cases rather striking, can be seen also with Mamom figurines (*MNAE* Coll.); it seems puzzling, however, that Chicanel is stated (*RES*, p. 5) to be without figurines, and in a later section I will take up this problem. All of the aforementioned phases have figurines of the generalized "Type A" kind in the Hay-Vaillant classification. Furthermore, certain Conchas fragments quite clearly are of foreign origin, and in some cases the actual place of origin can be pointed out with some degree of probability, thus providing strong evidence for inter-site correlations.

Head Typology of Conchas Figurines

In this section, each type has been given a digraph code designation (RE for "round eyes," FE for "flat eyes," PF for "puffy face," VE for "V-eyes," TZ for Tres Zapotes), while exotics will be described under that heading. These classes usually are differentiated on the basis of eye characteristics. Within them, further distinctions can be made as regards head, size, proportions, general appearance, and so forth. Numbers follow the digraph code to indicate this. Finally, even finer sorting results in the addition of a lower

case letter to follow the type designation. The distribution charts for these figurine types show very little intra-phase chronological differentiation. It is hardly possible, therefore, to separate Conchas 1 from 2 solely on the basis of such a distribution. However, for descriptive and comparative purposes this typology has its uses.

RE–1 (fig. 54, *h*)

Features: large figurines with hollow heads and hollow bodies. Eyes of double-triangle-punch kind, with large, round pupils which have been occasionally punched completely through the wall. Bodies apparently seated and sexless. Limbs chubby and often hollow. Hands usually depicted with fingers, although some are shaped like "catcher's mitts" with upraised palms (fig. 56, *c*). Faces quite "naturalistic."

Surface and color: always have burnished Conchas White-to-buff slip all over with exception of back of head and all of headdress or hair. Red paint in mouth and on hair or headdress. Yellow wash over face on one example.

RE–2 (fig. 54, *l*)

Features: smaller versions of RE–1. Some heads are hollow on the very interior. One appears as a face on the neck of an effigy vessel.

Surface and color: face-neck has unburnished white slip on the exterior, but others appear unslipped and unburnished. Some with traces of red paint.

Comparative material: Monte Alban I (Caso and Bernal, 1952, fig. 478), human effigy vase with face very similar to RE–2 type, including large punched eyes which are very non-Monte Alban, and ear spools. Possibly an import from La Victoria or nearby? *Tlatilco* (Piña Chan, 1958, figurine 37, *u*, and pl. 39), human effigy vase with punched eyes, but less like RE–2 than is Monte Alban example.

RE–3 (fig. 54, *j*)

Features: fairly large, hollow. Double-triangle-punch eyes with large round pupils which are not punched all the way through. Face somewhat pear-shaped in outline.

Surface and color: apparently slipped Conchas White-to-buff and burnished.

RE–4 (fig. 54, *k*)

Features: grotesque heads, either large and hollow or smaller and solid, with double-triangle-punch eyes of which punches are very large and round; distinctly walleyes. Hair in topknot on one example.

RE–5–a (fig. 54, *a*)

Features: fairly large, solid heads characterized by foreheads which are depressed above prominent brows. Foreheads bulge above this depression. Eyes have deep double-triangle-punch, punches being round and so large that they are surrounded by a ring of displaced clay. Hair or headdress indicated by a simple band of clay. One has a pointed "man from Mars" headdress.

Surface and color: no slip apparent on most. "Man from Mars" painted red.

Comparative material: Finca Tierra Blanca, near Emiliano Zapata, Tabasco (Berlin, 1953, fig. 1, *p*), pottery head remarkably similar to this type.

RE–5–b (fig. 54, *b*)

Features: fairly large, solid heads. Broad faces with puffy cheeks and small, pouting mouths. Eyes double-triangle-punched, with large, round pupils. One example has hair indicated by central punctate braid and two punctate buns on either side.

Surface and color: no slip or paint apparent.

Technique: head put onto body by head-peg below neck.

RE–5–c (fig. 54, *c*)

Features: combines features of RE–1 and RE–5–a. Naturalistic, with double-triangle-punch eyes and large round pupils. Forehead depressed below eyes, but bulges forward above. Simple band-type headdress or "hair-do." Hollow, but thick-walled.

Surface and color: head slipped Conchas White-to-buff, burnished on face only. Mouth painted red.

RE–5–d (fig. 54, *d*)

Features: large, solid head. Combines RE–5–b and FE–1–a features. Wide face, puffy-cheeked, eyes double-triangle-punched with large, round pupils. Mouth small and

pouting, giving face a bull-dog expression. Furrowed brow effect over eyes (FE–1–a feature). Hair done up in coiffure, hanging down back (indicated by vertical incision).

Surface and color: face slipped with Conchas White-to-buff slip, then burnished. Hair had red pigment rubbed on.

Comparative material: much-worn example of I–a (3?) type at *La Venta* (Drucker, 1952, pl. 27, *a*) appears to be identical in features.

RE–6–a (fig. 54, *e*)

Features: medium to small solid heads, "naturalistic" features. Eyes double-triangle-punched, with large, round punches for pupils. Faces are usually oval, top of head somewhat tapering. Headdress most often simple, hair indicated by punctate lumps of clay. Mouths often wide open, suggesting a look of intelligent surprise.

Surface and color: no slipping or burnishing apparent. Eyes painted white, ears, mouth and hair usually red. Lower half of one face painted red.

Comparative material: Chiapa de Corzo (*NWAF* Coll.), many figurine heads from Chiapa II, III, and IV are almost identical with this type. *El Sitio*, San Marcos (*MNAE* Coll.), in Lot K–11–B from Cut #1 of Shook's excavations is head which is identical to more round-faced RE–6–a specimens. *La Venta* (Drucker, 1952, pl. 26, *c*, *d*, *f*), IB–3a heads also closely resembling rounder RE–6–a examples at La Victoria.

RE–6–b (fig. 54, *i*)

Features: small solid heads, "naturalistic" but tending slightly to caricature. Heads more cylindrical and less tapering toward top than RE–6–a. Chinless profile, nose protruding and somewhat bulbous. Eyes double-triangle-punched, with round pupils. Headdress or hair simple.

Surface and color: one with face slipped Conchas White-to-buff, mouth and "hairdo" or headdress painted red.

RE–6–c (fig. 54, *f*)

Features: very small, solid heads which are quite concave at back and thin in cross-section, tapering toward top, "naturalistic." Eyes double-triangle-punched, round pupils. Hair or headdress indicated as single mass or band, clump of hair on forehead.

Surface and color: one head slipped Conchas White-to-buff, burnished. "Hairdo" or headdress painted red.

Technique: attached to body by head-peg below neck.

RE–7 (fig. 55, *a*)

Features: small, solid heads characterized by double-triangle-punched eyes with round but small and poorly made pupils. Eyes surrounded by bands of clay for eyelids. Lips prominent.

Surface and color: one face burnished, others upslipped and unburnished. White paint in eyes, red in mouth and on cheeks and hair.

RE–8 (fig. 55, *b*)

Features: large to medium-sized solid heads. Eyes double-triangle-punched, with large, round pupils. Outer apexes of triangles point sharply downward. One head shows pierced ear lobes hanging down without the usual spools.

Surface and color: no slip or burnish apparent.

RE–9 (fig. 55, *c*)

Features: large, solid head with "naturalistic" features of RE–6–a but lacks concave back and tapering crown. Mouth reminiscent of RE–5–b. Eyes usual double-triangle-punched with large round pupils.

Surface and color: no slip apparent. Lower part of face and all of "hairdo" painted red. Paste fine and buff, quite soft.

RE–10 (fig. 55, *d*)

Features: medium-sized, solid head. "Naturalistic," very sensitive face, with double-triangle-punch eyes and round pupils resulting from the punch. Eyes somewhat upslanting. "Hairdo" indicated by bands with red-filled punctations.

Surface and color: no slip or burnishing apparent.

RE–11 (fig. 55, *e*)

Features: medium to small, solid heads. Heads are elongated in shape, tapering toward top. Noses very prominent and "Roman" (appear to be caricatures). Eyes normal double-

triangle-punched, with large, rounded pupils.

Surface and color: no slips evident. Mouth and lower half of face painted red, whites of eyes and ear spools painted white. Eyelids and forehead black.

RE–12 (fig. 55, *f*)

Features: medium-sized solid heads characterized by combination of RE double-triangle-punch eyes (with round-punched pupils) and FE "squint." "Hairdos" divided down back by single vertical line.

Surface and color: unslipped and unburnished. One has white paint on whites of eyes and on ear spools. Red paint on mouths and all of lower face below squint line; also on "hairdo."

Comparative material: La Venta (Drucker, 1952, pl. 26, *e*), type I–B–3a/4 shows some resemblance to RE–12, but is somewhat broader.

RE–13 (fig. 55, *g*)

Features: medium-sized, hollow head. "Naturalistic," with upslanting elliptical eyes with shallow, double-triangle and medium-diameter punches for pupils. Mouth open, upper teeth carefully indicated. Face somewhat broad.

Surface: thickly slipped in Conchas White-to-buff, burnished.

Comparative material: Uaxactún, Mamom phase (*MNAE* Coll.), several figurine heads which are exactly similar in features to RE–13, although they lack the heavy white slip.

FE–1–a (fig. 55, *h*)

Features: medium-sized and somewhat flat, solid heads. Eyes double-triangle-punch, but punches flattened producing elliptical pupils; surrounded by flaring brow lines and lines below giving a pronounced "squint" effect. Mouths high on heads and somewhat pouting. Faces usually chinless and blending into a fat, goiterous-looking neck.

Surface and color: no slips apparent; unburnished. Whites of eyes and ear spools painted white, red paint usually on lower part of faces below squint lines and on neck.

FE–1–b (fig. 55, *i*)

Features: small or very small, solid heads. Faces with FE–1–a eyes and squint lines, but less flat and broad, with better-developed chins.

Surface and color: no apparent slips, but one specimen has burnished face. Red paint on "hairdo."

FE–2 (fig. 55, *j*)

Features: medium-sized, solid heads. Chubby faces with FE–1–a type eyes and squint lines, but with punched dimples below lower lip on all three examples, with dimple punches also appearing on the cheeks of one example. Chins better developed than FE–1–a.

Surface and color: slipped Conchas White-to-buff on faces and burnished. Red paint in mouths and on "hairdo."

FE–3 (fig. 55, *k*)

Features: medium-sized, solid head. Combines RE–5–b shape with FE eyes, but lacks squint lines.

Surface and color: unslipped and unburnished. Red pigment in punctations of "hairdo."

FE–4 (fig. 55, *r*)

Features: small, solid head. Eyes double-triangle-punched, with punches smaller and more flattened than in FE–1–a, eyes also narrow. Squint lines above but not below eyes.

Surface and color: apparently unslipped, unburnished. Red paint or pigment in punctations of hair bands.

PF–1 (fig. 55, *q*)

Features: medium-sized, solid head. Eyes indicated by single horizontal slits which slightly downturn, surrounded by puffy cheeks and puffy upper eyelids. Headdress turban-like.

Surface and color: no slip or burnishing evident. Face and headdress painted red.

Comparative material: La Venta (Drucker, 1952, pl. 40A, 1) has face with identical features, from Stratitrench 3, Level 2.

VE–1 (fig. 55, *s*)

Features: small, solid head. Each eye made by two slitlike punches, forming wide, inverted "V." No central punch for pupil.

Surface and color: apparently unslipped. "Hairdo" painted red.

TZ–1 (fig. 55, *p*)

Features: medium to small solid heads. Eyes

done in typical Tres Zapotes fashion—two impressions forming a wide, inverted "V," with a small central punctation. "Hairdo" comes well over forehead, indicated by vertical striated lines. One example is puffy-cheeked baby-face. Ear spools very large and facing front (rather than sides, as in typical Conchas style).

Surface and color: both examples completely painted red.

Comment: from very late Conchas 2 deposits (E–4, Level 3, and E–3, Level 5).

Comparative material: Tres Zapotes (Drucker, 1943; Weiant, 1943), TZ–1 absolutely identical to Drucker's Type C, which is placed in Lower Tres Zapotes (*see* Drucker, pl. 35, *i*, and Weiant, pl. 15). If the Conchas specimens are not actual trade pieces from Tres Zapotes, then they are slavish imitations of the type. Tres Zapotes-type figurines also appear to the east at Finca Arizona (compare Weiant, 1943, pl. 27, nos. 13 and 4–5 with Shook, 1945, fig. 7, *m* and *l* respectively).

TZ–2 (fig. 55, *o*)

Features: medium-sized, hollow head. Elliptical, upslanting eye with small, rounded pupil. Hair shown by long punctations.

Surface and color: may have had a whitish-buff slip. Face burnished. Now light buff in color. Red paint or pigment in punctations on "hairdo."

Comment: Late Conchas 2 or Crucero in time.

Comparative material: Tres Zapotes, Subtype E variant of Drucker (1943, pls. 43, *j*, 44, *t*) is identical in every respect to TZ–2, including hollow construction.

Other Exotics

One specimen (fig. 55, *n*) from Level 5 in E–4 is a small, solid head, broken at the top, with a reddish-brown slip over an orangey-buff paste which is not local. The cheeks are puffed out, the eyes punched with small pupils. This example appears to be almost identical to one of the "Puffed Cheek Type" (MacNeish, 1954, fig. 21, no. 1) from late in the Ponce phase, Pavon site.

Another (fig. 55, *l*) from Level 8 of E–4 is medium sized and solid, apparently unslipped but with a burnished face, reddish buff in color. The head is very broad, with oval eyes and medium-diameter punched pupils. A clay appliqué lump in the middle of the forehead has been finely striated vertically. The point of origin of this specimen remains unknown.

Finally, a medium-sized and solid head (fig. 55, *m*) which is slipped gray (with burnished face) over a buff paste with crystal ash temper is completely foreign in type to anything at La Victoria. It was found in Pit 1, Level 2. The hair is peppercorn-looking, done in appliqué, and separated into two parts by a punctate band. The eyes have small punched pupils and are completely surrounded by clay ridges. The mouth has the punch at each corner typifying Providencia figurines at Kaminaljuyu. The ear spools or plugs are very small with a single tiny hole in the center.

Typology of Torso Fragments from Conchas Figurines

It proved to be absolutely impossible to match any figurine fragment with any other at the site, in spite of many hours spent in the process. Not one head would fit any of the bodies. The ancients must have willfully hurled each fragment from a broken figurine to a different direction. At any rate, a separate typology was devised for Conchas figurine bodies, although it is known that in the case of RE–1 heads, large, hollow bodies were attached. These types have simply been assigned numbers.

Type 1 (figs. 56, *d*; 57, *a*): wasp-waisted, with small and rather low breasts, long in torso length with sagging belly. Back flat to concave. Usually, but not always seated. This is the most common type; the drooping anemic posture is unmistakable.

Type 2 (fig. 57, *b*, *c*): torso short, breasts very flat and almost vestigial, belly large and swollen, apparently pregnant. Always seated.

Type 3 (fig. 57, *d*): small, hugely pregnant individuals. Bellies spherical, with large navels, overhanging outspread legs. Always seated.

Type 4 (fig. 58, *a*, *b*): sexless individuals, with breasts absent or barely in evidence. Bellies flat or slightly rounded. Little or no pinching-in at the waist. Usually, but not always, seated.

Type 5 (fig. 57, *e*, *f*): standing, concave-backed figurines; concave above small but-

tocks, like Las Charcas (*MNAE* Coll.). One example solid, slipped Conchas White-to-buff and burnished. Other specimen unslipped but burnished.

Type 6: buttocks swollen. Narrow, band-like skirt below which legs are small and tapering. Type resembles Tlatilco figurines.

Type 7 (fig. 61, *i*): poorly fashioned with small, round breasts, large punches for nipples and navel. One has large ear spool of Tres Zapotes type above shoulder (from Level 1 of E–4). Possibly Crucero.

Animal Representations

A certain number of Conchas fragments represent various local animals. In only a few cases do these seem to have been actual figurines. Most are perhaps *adornos,* parts of effigy vessels, and so forth.

Howler monkey (E–4, Level 8; fig. 58, *e*): solid unslipped, apparently once painted white. May have been figurine, but looks broken off from something. Has low crest, and depicted in process of roaring.

Large feline effigy (E–6, Level 8; fig. 58, *f, right*): fragment of face and mouth of some feline, naturalistically depicted. Hollow; outside has thick Conchas White-to-buff burnished slip.

Semi-feline effigy (E–6, Level 9; fig. 58, *f, left*): fragment of muzzle part of face. Muzzle nose and bracket-shaped upper lip buff in color, mouth white, rest of face Conchas White-to-buff, all areas burnished. Very similar to "black ware effigy fragment" from Trench 10, Tres Zapotes (Drucker, 1943, pl. 42, *r*).

Woodpecker (E–4, Level 8; fig. 58, *g, second from left below*): solid head representing the Pale-billed Woodpecker, *Phloeoceastes guatemalensis,* a frequent visitor at the site. Unslipped, with the characteristic large crest painted red.

Crested birds (F–5, Level 5, and E–5, Level 2; fig. 58, *g, two on right below*): unslipped heads from an unknown species, broken from hollow bodies (whistles?). Beaks, eyes, and crests painted red, otherwise unslipped and unburnished.

Small bird adorno (G–5, Level 7; fig. 58, *g, upper middle*): solid with outstretched wings, painted red. Status as *adorno* uncertain.

Anthropomorphic weasels (?) (3 specimens from E–4, Level 8, one from G–5, Level 3; fig. 58, *h*): broken from hollow bodies which may have been whistles. Heads resemble weasels (*Mustela frenata*), but have ear spools; one with headdress (E–4 example) looks very Tres Zapotes-like. Unslipped, red paint on muzzles and headdress, ear spools white.

Plaques or Effigies (fig. 58, *i–k*)

Three fragments (from Pit 1, Level 3, E–3, Level 8, and E–6, Level 4) are from large, anthropomorphic faces. These are slipped Conchas White-to-buff, on the face, with the back being burnished but unslipped buff. The eyes are indicated by a broad and shallow double-triangle technique, with no punching. The nose is comparatively small and low. One has a red slip above meeting of the brows. Wall thickness is .8–.9 centimeter. One example is perfectly flat and therefore must have been some sort of plaque, while two are slightly convex and clearly belonged to a vessel or curved mask.

Effigy Ring

From Level 5 of E–3 came a curious pottery ring (fig. 42, *a*), of a size which would fit comfortably on the thumb but would be too big for the other fingers. On one part of the exterior is a strange face which is masked on the lower part below the nose. A more typically Conchas face with RE features is above it on the ring. The former is clearly of Tlatilco type, both in the Type D eye treatment and in the masking (*see* Porter, 1953, pl. 5, *f*). Faces with masks over the lower part also appear in Tres Zapotes (Weiant, 1943, pl. 25, nos. 1–6) in a Formative context. Pottery rings of the same kind are known from Tres Zapotes (Weiant, 1943, pl. 65) and from the Las Charcas (Raul Moreno Coll.) and Sacatepéquez (Mata Amado Coll.) phases in the Valley of Guatemala area. It would seem to be late Conchas 2 in date at La Victoria.

THE CRUCERO PHASE

No surely Crucero figurines have been identified at La Victoria, but certain heads and bodies which have been labeled as Conchas (i.e., Type 7) may actually belong to the later phase. I seriously doubt whether any Formative phase in Middle America really lacks figurines. A larger and better Crucero sample would solve this problem.

THE MARCOS PHASE

A few fragments of hollow, mold-made figurines of typically Pacific Coast Classic aspect were found in the upper levels. The sherds were too small to be of much help, but most were unslipped with much appliqué, and with fine paste.

Chapter IX

ARTIFACTS

INTRODUCTION

THE ARTIFACT inventory of La Victoria, excluding pottery and figurines, is as remarkable for its absences as for the actual traits present. In the Ocós phase, while tiny re-used obsidian chips are found, obsidian blades are totally unknown, and do not appear until the Conchas phase. Missing from both Ocós and Conchas are bone and shell artifacts of any sort (although an occasional pierced bone or shell is present), fishhooks, projectile points, and perhaps even incensarios. Without surviving equipment for the food quest, the Formative inhabitants of La Victoria must have depended upon nets and traps for hunting and fishing, with possibly the addition of fish poisons for the latter.

As with the ceramics, the evidence for actual Crucero artifacts is typological and not stratigraphic. The same is, of course, true for Marcos. Consequently, it has been indicated in the text where identification as to phase is in some doubt. However, it can be stated with some degree of certainty that projectile points, fishhooks, and bone or shell artifacts are likewise absent from these two latest phases.

THE OCÓS PHASE

(*Figs. 41; 51*)

General Remarks

The tool assemblage of the Ocós phase is somewhat limited. Metates (or milling stones, to use a more accurate designation) are very crude, being merely what look like worn-down river cobbles, and manos are likewise very rudimentary. The more elaborate trough and footed metates known from other areas are not present. River cobbles and other small, water-worn stones were utilized for grinding purposes, mainly, it appears, to grind red pigments. Rather well-fashioned stone bowls may actually have been mortars, and the occurrence of stone bell-shaped pestles would reinforce this idea. The curious lack of prismatic blades or any other artifact deliberately fashioned from obsidian is particularly strange, since obsidian chips abound in Ocós levels. Moreover, these chips or small flakes show pronounced bulbs of percussion, suggesting that the Ocós people were making something out of this raw material. If so, it has never been found. They did, however, utilize small flakes as rough-and-ready scrapers and spokeshaves. A variety of artifacts were made from old potsherds. The exact functions of these are not known, although some were undoubtedly net weights, while others perhaps were connected with spinning. The pottery ear spools and plugs which are so diagnostic of the Conchas phase are totally absent in Ocós. Many perishable products have disappeared but impressions on pottery indicate a variety of textiles and fibers.

The Artifact Inventory

Whistles (fig. 40, *a–c*)

Material: pottery, unslipped, but one out of two specimens is burnished. Color buff to gray.

Description: one fragment may have been effigy, but unsure. This has flattened mouthpiece, elliptical blow hole, at least one stop on belly of whistle. Sound chamber thin-walled. Below mouthpiece is protuberance which has been pierced laterally for string, hung police-whistle fashion. Other example less surely Ocós (perhaps Conchas 1)—small bird effigy with outstretched, stumpy wings, two stops on chest, therefore plays three notes (fig. 40, *a*).

Comparative material: Uaxactún, Mamom phase (*RR*, fig. 140), whistle very similar to bird effigy from midden below bottom floor of E Plaza.

Mask (?) (fig. 51, *u*)

Material: pottery, with wash or paint on exterior of Specular Red, but surface unburnished.

Description: appears to be a lower jaw and upcurling tongue of life-sized face mask. Tongue looks very batlike.

Prong from incensario (?) (fig. 51, *s*)

Material: pottery with coarse, unburnished surface.

Description: object broken from something larger. Somewhat flat in cross-section and tapering from a "front" view toward a flattened "top." Three deep, coarsely fashioned vertical grooves on one side. End is obliquely beveled and shows use polishing on bevel so, therefore, it could not have been a foot or leg for a vessel as it would slant in the wrong direction (decorated surface would be toward underside of vessel). Reverse of grooved side is slightly smoke-blackened. Evidence indicates this probably prong of a three-pronged incensario. Present length 5.8 centimeters. Maximum width 4.2 centimeters. Longer before being broken.

Sherd disks (fig. 51, *c*, *d*)

Material: re-used sherds.

Description: somewhat irregularly shaped disks, with edges usually ground down. 4.0–9.5 centimeters diameter or longest axis. Larger specimens probably used as plates (but not as pot rests, because no wear evident).

Sherd abraders (fig. 51, *a*, *b*, *e*)

Material: re-used sherds.

Description: irregularly shaped sherds on which one or more edges ground down by use as saw or abrader.

Comparative material: La Venta (Drucker, 1952, pl. 42), sherd abraders of similar aspect.

Sherd disks with incomplete drilling (fig. *f*)

Material: re-used sherd.

Description: rounded disk with ground edges, concave surface with bored or drilled conical depression at center. Longest axis of disk 4.3 centimeters. Probably a rest for a spindle shaft, since bottom of depression appears to have been smoothed down by twirling around of pointed stick.

Comparative material: Kidder (1947, p. 67) suggests that these could have been incomplete spindle whorls. However, both Uaxactun and Ocós examples are not perfectly round, and the former have rough edges. Kent (1957) describes the use of sherds as spindle rests in Mexico and Guatemala, associated with cotton spinning with a bead whorl (p. 475).

Notched sherds (fig. 51, *g*)

Material: re-used sherds.

Description: sherds which have been ground down to more or less rectangular outline, with two notches ground into the edges on opposite sides so that the sherd could be held with string. Size from indentation to indentation varies from 2.2 centimeters to 4.2 centimeters. These were almost certainly net weights.

Bowls or mortars

Material: stone, one example of buff-gray fine-grained stone, other of a bluish gray granitic composition.

Description: 1) Round bowl (figs. 41, *b;* 51, *q*), simple silhouette shape, finely polished on the outside but rougher on interior. Diameter 18 centimeters, 2.0 centimeters across at thickest point. *2*) Oblong bowl (figs. 41, *a;* 51, *r*), finely finished, some polishing, perhaps from use, on both sides of base. Width 11.5 centimeters at widest point. Height 4.6 centimeters. Length unknown.

Comparative material: Chiapa de Corzo (Dixon, 1959, fig. 53, *f*), thick and unfinished stone bowl or mortar from Pit 50 period (Chiapa 1). Kidder (1947, p. 35) states, "Rarity and lack of standardization of stone mortars and the absence of specially shaped pestles seem to constitute a negative trait of lowland Maya culture, and, indeed, of that of Mesoamerica as a whole." La Victoria, however, seems to have both, which are present in Conchas as well as Ocós. In Tamaulipas (MacNeish, 1958, pp. 91–92), mortars made from river stones or volcanic tufa are found from the Nogales phase (ca. 4000 B.C.) to Los Angeles (up to present). In the Miraflores

phase at Kaminaljuyu, various kinds of round mortars have been found (and toad-shaped effigy mortars) as well as pestles (Shook and Kidder, 1952, fig. 78, *a–e*). It seems certain that at least the round bowl mentioned above was actually a mortar.

Metates or milling stones (fig. 41, *e–g*)

Material: granitic stone and tufa.

Description: river stones with flat or slightly concave upper surfaces. Outline may be circular or rectanguloid. Under side convex near edges, flattened at base, poorly finished. Use (?) polishing always present on upper surfaces, while opposite surfaces merely pecked into shape. Almost certainly used in association with manos or hand stones.

Comparative material: crude milling stones of this sort are known in Tamaulipas (MacNeish, 1958), but have not yet been found in other areas of Middle America. *Chiapa de Corzo*, the Pit 50 period (Chiapa I) has better-made trough metates (Dixon, 1959). *Uaxactún* (Kidder, 1947, p. 35), metates or milling stones have not yet been found in Mamom (or Chicanel?) deposits.

Pestles (fig. 51, *p*)

Material: stone, including quartzlike, granitic, and tufa varieties, probably all picked up in the river.

Description: small, bell-shaped pestles, circular or somewhat quadrangular in cross-section at the base, latter expanded and polished from use. Other end tapering and rounded at base.

Comparative material: Kidder (1947, pp. 35–36) has an excellent discussion of the distribution of pestles in Middle America. Most of the ones cited by him are late, that is, Post-Classic. *Tamaulipas* (MacNeish, 1958, p. 93), date from Laguna (Pánuco II) through the Los Angeles phases. MacNeish suggests a use with clay *molcajetes* to grind chile. *Pavon site* (Ekholm, 1944, pp. 392–93), from El Prisco (Pánuco II) through Pánuco (Pánuco VI) phases. *Middle Zacatenco* (Vaillant, 1930, pl. 45, no. 2), large pestle of lava. *Kaminaljuyu*, the pestles associated with Miraflores mortars have already been mentioned.

Manos or hand stones (figs. 41, *d*; 51, *m*, *n*)

Material: various kinds of granitic stone, probably all from river boulders.

Description: usually short, oval in cross section, with polished convex but flattened working surfaces. One specimen is merely a river cobble with somewhat flat facets which has been used as a mano without further working. One rough facet of this tool had been used as a palette for grinding red pigment. The ends of these manos show use as pestles or as pounders. One complete specimen is 10.5 centimeters in length, 8.5 centimeters wide, and 5.0 centimeters thick.

Pebble grinding tools

Material: natural river-worn cobbles, of a heavy but somewhat porous stone.

Description: unmodified stones, flat or pestle-like in shape (one is more spherical). Most have been used to grind red pigments, and one was certainly used to grind specular hematite. Traces of these pigments are still to be seen on the grinding surfaces. Probably they were used against larger river cobbles. One specimen, from a denser and whiter stone, bears no traces of pigment, but shows use both as a grinding surface and as a hammerstone or pounder.

Large spherical hammerstone (fig. 51, *o*)

Material: granitic stone, probably from a river cobble.

Description: large stone of spherical shape, 10.8 centimeters in diameter, with a pock-marked surface resulting from use as a pounder or hammerstone. This could also have been an effective weapon at close range.

Pierced pumice disk (fig. 51, *j*)

Description: flat, circular disk with hole cut (not drilled) through center, sides and edges rubbed smooth. Diameter 4.8 centimeters. Thickness 1.3 centimeters. Diameter of hole 1.8 centimeters. Because of its buoyancy, this could well have served as a float to be used with a hand line (that is, if perishable fishhooks such as ones made from thorn were also present).

Abrading tools, pumice (fig. 51, *h*, *i*)

Description: flat to loaf-shaped pieces of pumice which apparently served as abraders or smoothers for finishing wood.

Obsidian scrapers and spokeshaves (fig. 51, *k*)

Material: black obsidian of poor quality, often banded.

Description: small, anomalous flakes which show signs of use, but are never purposefully shaped. Ones with concave working edges were spokeshaves, while convex edges were utilized as small scrapers. Only one fair-sized example shows signs of repeated use as a scraper.

Pierced bone pendant

Description: long bone of some small mammal which has been biconically drilled at one end for use as a pendant.

Pierced shells (fig. 59, *j*)

Description: Agaronia testacea shells which have holes pierced through them near the apices, apparently by a combination of cutting and breaking. No sawing or drilling is evident. One specimen has apex broken off, but this could not have been functional as the pierced hole and the opening above do not connect. They could have been worn as tinklers if toggles were placed within the holes for string attachment.

THE CONCHAS PHASE

General Remarks

With some notable exceptions, the artifacts of the Conchas phase duplicate those of the Ocós phase. However, these exceptions include the addition of some important tools and decorative objects which quite clearly differentiate the phase from Ocós. Long, prismatic blades of obsidian appear for the first time in Conchas, and their presence along with the wide pottery ear spools in the very lowest levels of Conchas 1 initiates the phase. Other new tools include rare polished celts, and one fragment each of a flake axe and a grooved stone axe. Metates are now better made, with actual troughs instead of the nearly flat surfaces of Ocós specimens. Feet are still absent. Stone bowls and/or mortars are manufactured, but some examples are probably tetrapod. Pestles of stone, bell-shaped like those of Ocós, were perhaps used with mortars, but it seems a certainty that they were mainly used in conjunction with the Conchas White-to-buff grater bowls in the preparation of foods like chile. A few ornaments, of pierced carnivore teeth or ear spools of fish vertabræ, are the only bone artifacts of the phase, while shell, which was available in unlimited amounts, was ignored as a raw material. Evidence for twined basketry or matting accidentally survived through pottery impressions.

The Artifact Inventory

Pottery ear spools (Conchas 1 and 2; figs. 42, *d;* 60, *a, b*)

Form: "Napkin-ring" ear spools, relatively large in diameter, thin and usually lenticular in cross section and very slightly concave on exterior. Shorter spools may be more strongly concave, with one edge slightly flaring (this a feature of Conchas 1). The longer the spool, the less concave. Diameter is usually twice the length. A very few are long and tubular.

Dimensions: diameters 2.6–7.0 centimeters, average 4.7 centimeters. Length 1.7–3.2 centimeters, average 2.4 centimeters. Maximum thickness .3–.5 centimeter, average .4 centimeter.

Paste: extremely fine and fairly hard. Temper fine, possibly crystal ash. Cores dark gray to black.

Surface: all, with possible exception of examples in buff range, slipped on all surfaces. All surfaces highly burnished.

Color: may be any one of the following colors: *1*) Black; *2*) Gray; *3*) Buff (10.0 YR 5/3); *4*) Red (10.0 R 4.5/8); and *5*) Orange (5.0 YR 6/5).

Decoration: only 6 per cent (18 out of 317) have further decoration (fig. 60, *a, b*). All of these are black-slipped. This usually consists of deeply gouged out bands and incised lines on the interior, paralleling the rims. Bands and incision may be filled with red or white pigment, sometimes both on the same specimen. Some have white- or red-filled excision on the exterior. One spool has an excised chevron pattern filled with white on the outside.

Comment: very few examples were found in Conchas 1 deposits. These are usually black,

although orange, buff, and gray spools were also present. Decoration is confined to Conchas 2.

Comparative material: Chiapa de Corzo (*NWAF* Coll.), ear spools of this type curiously enough do not appear in the sequence until Chiapa V, in association with elaborate burials of that phase. *Kaminaljuyu,* Las Charcas phase (*MNAE* Coll.), very similar ear spools of the slightly outflaring variety. *Pavon site* (*AMNH* Coll., 30.3/167), ear spool, 7 centimeters diameter, 1.5 centimeters long, .2 centimeter maximum thickness. Red slip over fine buff paste. Outflaring variety, from MacNeish's analysis level 15, late Ponce phase. This specimen is unique at the Pavon site, but typically Conchas (especially Conchas 1). *Middle Zacatenco* (Vaillant, 1930, pl. 40, no. 1), black, polished pottery ear spools, incised on interior. *El Arbolillo,* late I and II (Vaillant, 1935, pp. 238–39), pottery ear spools; in same publication, figure 25, number 12, shows black spool with Conchas-like flaring at one end. Figure 25, number 13 (Late I), is straight in profile with "fawn" slip, very closely resembling many Conchas specimens. *Ticoman* (Vaillant, 1931, pl. 82), several very similar flared forms assigned to Intermediate Ticoman.

Solid pottery ear plugs (Conchas 1 and 2; fig. 60, *c*)

Form: cylindrical objects, flat to slightly concave on the circular surfaces. Vary from wide and disk-shaped to smaller but long and tubular plugs. The very smallest would presumably be for small children. Some very crudely shaped.

Dimensions: diameters 1.3–5.3 centimeters, average 2.9 centimeters. Length 1.2–3.5 centimeters, average 2.2 centimeters.

Paste: very fine. Probably fine crystal ash temper, red inclusions are often visible. Color often black or dark gray except near surface, where buff.

Surface: all unslipped. Only about 16 per cent appear to have been burnished.

Comment: probably used to distend openings of ears which had been pierced for the larger ear spools; not overly heavy, however. These are obviously utilitarian, being undecorated and often poorly finished. Nonetheless, there are far fewer specimens than exist of the finer ear spools (only 35 fragments, as opposed to 317 fragments of ear spools).

Comparative material: Gualupita (Vaillant and Vaillant, 1934, fig. 30, nos. 1–4, 6–7), similar objects, but uncertainty whether Gualupita II or III. *Ticoman* (Vaillant, 1931, pl. 82), especially typical of Early Ticoman.

Large sherd disks (Conchas 1 and 2; fig 59, *a, below left*)

Description: large, more or less circular sherds which usually are ground down at the edges. In one case, a dimpled base was so treated. The diameters or longest axes vary from 7 to 13 centimeters.

Comment: These perhaps could have served as simple containers for small objects around the house.

Small sherd disks (Conchas 1 and 2; fig. 59, *a*)

Description: very small disks made from sherds which have been ground down at the edges, usually approximating a round shape but often being oval or rectanguloid. Vary in diameter or longest axis from 1.9 centimeters to 3.3 centimeters.

Comment: Probably counters for a game or for an abacus. Nondescript or worn sherds never used, only those with good slips of clear color (i.e., Ocós Black, Conchas White-to-buff, etc.). Out of a total of 75 specimens at the site, 38 were found in Levels 8, 9, and 10 of G–5; the rest were usually confined to Conchas 1 deposits.

Oblong sherd disks (Conchas 2; fig. 59, *b*)

Description: large sherd disks, oblong in shape with rounded corners, all edges carefully ground. Width 4.8–8.0 centimeters. Length unknown. Both specimens were made from Conchas White-to-buff fragments.

Comment: use unknown. One disk bears traces of red pigment on both surfaces, and may have been used as a palette.

Drilled sherd disks (Conchas 2 and possibly 1; fig. 59, *f*)

Description: more or less circular sherd disks with ground edges. Each has central, biconically drilled hole. Diameters or longest axes 4.0–7.5 centimeters.

Comment: Only one out of three has proper-

ly centered hole and well-shaped sides. Others eccentrically drilled and irregularly shaped. E. M. Shook has pointed out in conversation that biconically drilled sherds with no further smoothing of the hole could not have been used as spindle whorls as they would not fit properly on a spindle. Kent (1957, p. 473) states that only very carefully shaped sherd disks could serve as spindle whorls, experiments with others demonstrating this clearly. Consequently, one is left with the likelihood that these Conchas drilled disks were probably decorative, and that actual whorls were made of wood or beeswax. Purposefully made pottery whorls do not appear until Crucero times at the earliest.

Comparative material: pierced sherd disks have a wide distribution during the Formative. They are usually identified as spindle whorls (cf. Vaillant, 1930, p. 155) although Kidder (1947, pp. 67–68) cautions that only the best-made and cylindrically reamed examples at Uaxactun should be considered as such.

Sherd disks with incomplete drilling (Conchas 2; fig. 59, *e*)

Description: see same entry for the Ocós phase. Two of the disks in this phase are drilled on the convex rather than the concave surface. Several lack edge grinding. Diameters or longest axes vary from 3.5 to 4.7 centimeters.

Comment: these are definitely spindle rests. The depressions show that a pointed stick had been repeatedly twirled in an already drilled hole to produce a deeper, narrower hole below.

Sherd pendant (Conchas 2; fig. 59, *c*)

Description: small, circular sherd, edges carefully ground down, biconically drilled hole at one end. Sherd is from Conchas White-to-buff vessel. Diameter 3.7 centimeters.

Sherd abraders (Conchas 1 and 2; fig. 59, *d*, *g*)

Description: see same entry for the Ocós phase. The outline varies from irregular to well-shaped rectangular.

Notched sherds (Conchas 1 and 2; fig. 59, *b*)

Description: see same entry for the Ocós phase. Width from indentation to indentation 1.9–5.0 centimeters.

Comment: These are not redeposited from Ocós, since they are identifiably Conchas pottery types.

Comparative material: La Venta (Drucker, 1952, pl. 45), these net weights, if they are such, are a typical feature of the phase.

Roller stamps (Conchas 2; fig. 59, *m*)

Description: 1) Fragment from very large, hollow roller (*right*). Diameter 5.8 centimeters. Length unknown. This fragment, which was 5.5 centimeters long, had sections of equal size on both ends, so may have been more than 17 centimeters in length. Walls 1.1 centimeters thick. Clay is buff gray and deeply carved. The roller surface was burnished after carving, red pigment rubbed into carved areas and on inside of cylinder. Interior has 3.3 centimeters diameter. *2*) Fragment of a roller stamp (*above*, *center*) with hollow interior, 2.5 centimeters diameter, central perforation .7 centimeter diameter. Clay is buff, surface deeply carved and afterwards burnished on roller surface. *3*) Small fragment of hollow roller stamp (*left*), about 3.6 centimeters diameter, walls .8 centimeter thick. Curvilinear design, deeply carved. This specimen may be Crucero in age.

Comment: roller stamps are often mistakenly called "seals," but they most likely were used to roll paint onto human bodies. No known pottery in Middle America, or anything else for that matter, has ever been shown to have been impressed with these stamps. A few roller stamps of Formative context have slightly convex surfaces. These could only have been used to roll across a yielding surface like the skin rather than the often-mentioned textiles.

Comparative material: the distribution of roller stamps in time would lead one to believe that they are usually, if not always, confined to the Formative in Middle America. I strongly suspect that alleged occurrences of these objects in Classic contexts are due to redeposition. *Chiapa de Corzo* (*NWAF* Coll.), large tubular stamps with deep cutting confined to Chiapa II. *Kaminaljuyu* (*KJS*, p. 214–15), two examples from general digging in Mound A, one from fill of B–4; phase unknown. *Uaxactún*, Mamom phase (Kidder, 1947, fig. 59, *c*), curvilinear carved design on clay cylinder, but could be bead as bore narrow and irregular.

RR (fig. 145, *e, f*) show two cylinder stamp fragments which are similar to Conchas examples, no phase given. *Copán* (Longyear, 1952, p. 103 and fig. 83, *a–d*), one specimen from Archaic phase (late Formative), two from Early Classic, and two from Full Classic. A note of caution should be sounded here, since at least two of the supposedly Classic examples came from mound fill, and, moreover, most of the illustrated specimens closely resemble in the general form and in the deepness of the carving well-known Formative stamps, such as those from Tlatilco. *La Venta* (Drucker, 1952, fig. 43, pl. 42), cylindrical but not deeply carved specimen. Significantly, roller stamps are lacking at Zacaleu (Woodbury and Trik, 1953), which has no Formative component.

Bowls or mortars (Conchas 1 and 2; figs. 42, *e–g;* 61, *t*)

Material: mostly granitic stone used, but some are of tufa.

Description: thick-walled bowls or mortars of simple silhouette shape. Some Conchas 2 fragments have nubbin-like feet, perhaps three on the complete specimen. A few have greatly thickened bottoms. Rims have diameters of 18–32 centimeters, height 7.3 and 6.1 centimeters. However, some were from bowls of much larger dimensions. Some, but not all, polished on interior.

Comparative material: see same entry under Ocós phase.

Metates (Conchas 1 and 2; fig. 43, *d*)

Material: varies from a coarse granitic to a porous tufa stone.

Description: only fragments available, but seem to have been fairly large, trough-type metates, probably oblong in outline, with unsupported, flat bases, rounded at corners. Use polishing evident on interiors, other surfaces unsmoothed after pecking into shape.

Comparative material: Chiapa de Corzo (Dixon, 1960), trough metates begin in Chiapa I.

Manos (Conchas 1 and 2; figs. 43, *a–c;* 61, *o–q*)

Material: granitic stone.

Description: similar to those of the Ocós phase, being somewhat short and loaf-shaped, flattened oval in cross section. Unmodified river cobbles also used as manos, with at least one surface highly polished from use. Mano ends, as in Ocós, also used as pounders or pestles.

Pestles (Conchas 1 and 2; fig. 60, *m*)

Material: granitic stone.

Description: very similar to Ocós pestles, bell-shaped with slightly expanding base, tapering toward the upper end. Length 4.7–7.5 centimeters. Width at base 3.9–4.2 centimeters.

Pebble grinding tools (Conchas 1 and 2; fig. 61, *r, s*)

Material: river-rolled stones, including a dense gray-green, a granitic, and a tufa stone.

Description: pebbles of various shapes which have been used as mortars and pestles to grind red pigment, traces of which have been retained in pores and cracks. Some flat, some elongated in shape.

Small stone balls (Conchas 1 and 2)

Material: porous light gray to tan stone with black crystalline inclusions.

Description: small and well-shaped spheres, 3.2–3.6 centimeters in diameter. No signs of use.

Comment: These might have been sling stones. They seem a little large and heavy for blow gun pellets.

Small tablets or palettes (Conchas 1 or possibly Ocós; fig. 51, *l*)

Material: sandstone or siltstone.

Description: flat tablet, rectanguloid in shape, with rounded edges. One fragment 6 centimeters wide. Original length about 10 centimeters. Thickness .5 centimeter.

Comment: one surface slightly concave, probably resulting from use as grinding surface or as palette.

Notched stone (Conchas 2; fig. 60, *p*)

Description: small, somewhat flat river pebble, notched at either end, probably to wrap string around during use as a net weight. Length 3.6 centimeters. Width 3.6 centimeters.

Polished celts (Conchas 1 and 2; fig. 60, *q*)

Material: dense greenish-black stone, somewhat specular.

Description: two fragments of well-polished

celts, oval in cross section. Size unknown, but one is 2.9 centimeters wide at cutting edge and 1.4 centimeters thick at thickest part. Other was originally much larger, but very fragmentary. A single intact edge shows, under a glass, abrasion marks running diagonally across the surface from use as an axe.

Comparative material: polished celts occur sporadically in the Formative of various areas, but are common only where caches of fine jade celts occur, usually in Olmec sites. *Tamaulipas* (MacNeish, 1958, p. 88), polished celts unknown until Laguna (Pánuco II). *Middle Zacatenco* (Vaillant, 1930, pl. 45, no. 4), jade celt. *Late Zacatenco* (Vaillant, 1930, pl. 45, no. 5), jade or serpentine celt. *Ticoman* (Vaillant, 1931, pl. 88), celts of jade, porphyry, diabase, and chert. *La Venta* (Drucker, 1952, pl. 55), large numbers of jade celts of finest quality.

Grooved axe (Conchas 2; fig. 42, *c*)

Material: fine-grained, dense, grayish-green stone.

Description: ground stone axe with groove (whether full or three-quarters unknown). Surface fairly well polished but not shiny, except for groove which is merely pecked out but not smoothed. Pronounced ridging on at least one side of the groove. Shape of poll and over-all dimensions unknown.

Comparative material: To my knowledge, this is the only Middle American grooved axe to be stratigraphically placed. Kidder (1943) presents fully the known geographical distribution of the form in the area from Mexico to Nicaragua. Among these are three fully grooved axes from the Pacific slope of Guatemala. These have laterally flattened and conical polls. In length they range from 10.4 to 17.6 centimeters, with an average of 12.8 centimeters. The Conchas fragment would fit perfectly any one of the illustrated specimens. One of these was purchased at Chichicastenango but may have originated elsewhere. Another was found on the Finca Moca, Suchitepéquez, and the third comes from the Finca Adelaida, 10 kilometers west of Moca. In the light of the La Victoria evidence, they probably are from Formative deposits. As shown by Kidder, from the Valley of Mexico south, grooved axes are extremely rare. The nearest thing to the north resembling the Guatemala specimens is a full-grooved axe from Tlacotepec, near Toluca, Mexico. The standard axe of northern Mexico is three-quarter grooved, and is especially common in the Casa Grande area on the middle Gila in Arizona. Full-grooved axes reappear in Anasazi where they are Pueblo II at the earliest. These closely resemble the Guatemala examples, but must be greatly removed not only in space but in time. Full-grooved axes in Middle America during the Formative must originate, if one insists on northern derivations, from the earlier axes of the same form which are so very common in the Eastern Archaic.

Flake axe (Conchas 2; fig. 60, *o*)

Material: dense, cryptocrystalline white stone, probably a poor-quality chert.

Description: percussion-flaked axe or chopper, very fragmentary.

Comment: another flake axe (fig. 60, *n*), narrower than the above, and of yellowish jasper, was found by Shook on the surface of the site (*MNAE* Coll., Lot K–20). Probably, this should be assigned to Conchas also.

Abrading tools, pumice (Conchas 1 and 2; fig. 60, *d*)

Description: pieces of pumice, which exhibit surfaces smoothed by abrading differently shaped objects and materials. These include: *1*) a smoother for shafts or poles which were 2.2 centimeters in diameter, the proper grooves of the tool being on two sides; *2*) wedge-shaped or loaf-shaped pieces for working flat wood surfaces, some of which are river-shaped but others artificial; one shows grooving from use in smoothing stick or edge of wood object; *3*) small spherical abraders; and *4*) an abrader with a hole in top of which a stick .5 centimeter in diameter was drilled or twirled, probable to smooth the end.

Obsidian blades (Conchas 1 and 2; fig. 60, *k*)

Material: quality better than that in Ocós chips, always black and sometimes banded. A few are of very poor quality obsidian.

Description: narrow prismatic blades struck from specially prepared cores. Most show minute use chipping along one or both edges, indicating their function as cutting tools.

Comment: very few found in Conchas 1 levels, most prevalent in Levels 6 to 8 of each

pit in Mound III. One core of very small size (fig. 60, *l*) shows that blades were struck until practically nothing remained. There was obviously an obsidian shortage. In contrast, exhausted cores in the obsidian-rich highlands are usually of large size.

Comparative material: in some early phases in some areas, obsidian blades are absent, while in other areas in what must be similar time levels they are abundant. The only explanation must be that in sites far distant from sources of the raw material, the demand for obsidian was belated, but once started, never stopped. Zacatenco and El Arbolillo have obsidian blades throughout the sequence, as does Kaminaljuyu—all highland sites. Uaxactún has very few on the Mamom phase (Kidder, 1947, pp. 14–15), and they do not occur in Ocós and in the Pavon phase.

Obsidian scrapers and spokeshaves (Conchas 1 and 2; fig. 60, *j*)

Material: black, banded obsidian of poor quality.

Description: small waste flakes, percussion-struck, used as scraping tools, and showing minute use chipping on one or more edges. In contrast with Ocós, a few flakes show some preparation and that they were clearly used as thumbnail scrapers. Some flakes unprepared, were used as spokeshaves.

Jade bead (Conchas 2)

Material: jade of brilliant green color, apple-green rather than blue-green.

Description: small, biconically drilled bead. Diameter .7 centimeter. Hole for threading is very minute.

Pierced canine tooth (Conchas 2; fig. 59, *k*)

Description: canine tooth of carnivore, probably dog, pierced at the root end by biconical drilling for suspension as pendant. Length 3.0 centimeters. Diameter of hole .4 centimeter.

Fish vertebræ ear spools (Conchas 2; fig. 59, *i*)

Description: fish vertebræ which have had the spines broken off and the sides subsequently ground down with some tool which has left striations horizontal to the edge of the vertebræ; perhaps sherd abraders were utilized. One large specimen has had the center cut out and smoothed down; another has a very small hole piercing the center; and others are unpierced.

Comment: The most likely function of these worked vertebræ is a use as ear spools, for which their shape would have been ideal. One specimen is unfinished.

Comparative material: no other examples known for Middle America, although known for the Valdivia phase of Ecuador and in the Brazilian *sambaquís*.

Basketry or matting (Conchas 1 and 2; fig. 60, *e–i*)

Description: two sherds from bases of vessels, one a Conchas White-to-buff vessel (fig. 60, *e*, *f*), the other Conchas Red Unburnished (fig. 60, *g*), show that pottery was shaped while sitting on a piece of matting or in a basket, and subsequently smoothed so as to remove any impressions resulting from the surface. In the case of these fragments, due to the unevenness of the surface of the bases, impressions remained accidentally in some areas. The entire area of one flat surface of another sherd from a Victoria Coarse vessel of unknown form (fig. 60, *h–i*), but with a ring-shaped disk attached to what seems to be an annular base (an incensario?), bears a very similar impression. All three impressions are of coarse fabrics manufactured by close simple twining. The stitch was slanted down to the left, that is, S-twined. Element counts are as follows: *1*) nine spokes per 2.5 centimeters by 12 weft rows; *2*) twelve spokes per 2.5 centimeters by 13 weft rows; and *3*) seven spokes per 2.5 centimeters by 9 weft rows.

Comparative material: La Venta (Drucker, 1952, pl. 22, *e*), impression of what must be twined basketry or matting on sherd; close simple twining probable. Curiously enough, twining is absent from the caves excavated by MacNeish (1958, pp. 101–103) in Tamaulipas, twilling and coiling being the only techniques encountered in basketry and matting. Twining is, however, very ancient in the "Desert Cultures" of western North America (Wauchope, 1956, p. 70), being the oldest form of textile manufacture in the lower levels of Danger Cave. In the latter, it is dated as early as 7839 ± 630 and 7010 B.C. ± 340 (Jennings, 1957, pp. 237–38). Other early occurrences of

twined basketry in the same area are at Tularosa Cave (Martin *et al.*, 1952, p. 303), Ventana Cave, in Level 2 of the upper cave (Haury, 1950, p. 410), and Lovelock Cave (Loud and Harrington, 1929, pp. 69–70).

THE CRUCERO AND MARCOS PHASES

General Remarks

These two phases have been grouped together here, because it is by no means certain in the case of some artifacts from the upper levels of the site to which of the two they should be assigned. Furthermore, at least one surface find described below, the bark beater, should probably be considered as Post-Classic. Non-Conchas artifacts in these levels include new items like the biconical clay spindle whorl, a tubular pottery bead, a flat pottery stamp, and an effigy finger bone. Obsidian blades were apparently manufactured in both phases. As for other products, such as metates and manos, nothing definite can be said until larger samples are excavated.

The Artifact Inventory

Spindle whorl (fig. 61, *b*)

Form: biconical, shaped pottery whorl. Shaft hole passes through apices. Well-fashioned and symmetrical.

Dimensions: diameter 3.5 centimeters. Length 3.4 centimeters. Width of shaft hole .5 centimeter.

Surface: burnished, but unslipped.

Color: dark buff to gray.

Decoration: four groups of three vertical cuts each, arranged on outer circumference.

Comparative material: Kidder (*KJS*, p. 216) states that purposely modeled whorls are absent in Middle American Formative. *Uaxactún* (Kidder, 1947, pp. 67–68), modeled whorls only from latest above-floor debris; these do not resemble La Victoria specimen. *San José* (Thompson, 1939, p. 153), no modeled whorls earlier than San José V.

Comment: Crucero or Marcos in date.

Cylindrical pottery bead (fig. 61, *c*)

Description: cylindrical object, at least 2.5 centimeters in length, .65 centimeter wide, pierced lengthwise by a tiny hole .15 centimeter in diameter. Apparently fragment of longer bead. Hole not drilled, but most likely made by building up bead around length of fine straw. Paste very fine and black, surface highly burnished, with parallel grooves encircling the bead at intervals.

Comparative material: Uaxactún, Tepeu phase (Kidder, 1947, fig. 58, *f*), very similar tubular bead. *Ticoman* (Vaillant, 1931, pl. 84), cylindrical pottery beads.

Comment: phase assignment uncertain, but probably Crucero.

Flat pottery stamp (fig. 61, *a*)

Description: circular stamp with small conical handle at back. Diameter 3.5 centimeters. Unslipped and unburnished. Carved design of three concentric rings on stamping surface.

Comparative material: Ticoman (Vaillant, 1931, pl. 83), two flat seals, one with three concentric rings within five-pointed star. *Copán,* Archaic phase (Longyear, 1952, fig. 83, *a*), flat stamp of rectangular shape with square spiral design. In the Guatemala highlands, flat stamps, usually long and rectangular, are quite late. *Zacaleu* (Woodbury and Trik, 1953, fig. 118, *a*, *c*), circular flat stamps, of very similar cross section, were found, phase unknown, but suggested to date from Qankyak (= Tohil Plumbate) or Xinabuhul (to Conquest).

Comment: probably Crucero.

Effigy finger bone (fig. 61, *d*)

Description: solid pottery effigy of one of first-row phalanges of hand, 4.4 centimeters in length. Paste fine and buff, quite soft. Surface unslipped and unburnished, but painted red.

Comment: phase assignment uncertain.

Obsidian blades

Description: prismatic blades identical in form to Conchas specimens, but of more uniformly good quality. A few are, however, somewhat wider and thicker.

Comment: both Crucero and Marcos in date. A far better contact with highland obsidian sources is indicated by the change in quality.

Bark beater (fig. 42, *b*)

Description: very fragmentary stone bark beater, longitudinally grooved on both surfaces, probably oblong in shape, and with a lateral groove with which the tool was hafted with thongs and wood. Thickness 4.5 centimeters. Length 8.3 centimeters. Width unknown.

Comparative material: Bark beaters have usually been considered as products of the Post-Classic, but other evidence indicates that they were also manufactured as early as the early Classic in some areas. *Uaxactún* (Kidder, 1947, p. 38), most are, like the above example, from surface deposits, but one is from Tzakol stratum. *Tamaulipas* (MacNeish, 1958, p. 93), identical objects which MacNeish suggests are some sort of graters, found in Laguna, Eslabones, and La Salta phases.

Comment: Since the La Victoria specimen was found on the surface, it is suggested that it be assigned to an as yet unnamed Post-Classic phase, perhaps coeval with Tohil Plumbate or with "horse polychrome."

Chapter X

RECONSTRUCTED LANDSCAPE AND CULTURE AT LA VICTORIA

THE ANCIENT LANDSCAPE

THE ECOLOGICAL situation of La Victoria was, in the distant past, far different from what it is today. To reconstruct the natural environment in which the ancient inhabitants lived, it will be necessary to examine the faunal remains in the site, particularly mollusks, and data on geological changes suggested by aerial photography of the area (fig. 11).

We have already seen that during the Ocós phase, and especially in the earlier part of Conchas, immense quantities of mollusks were eaten by the inhabitants of the village. The most prevalent species among these are either strictly confined to brackish-water situations in lagoons and estuaries, or else are found today in both brackish and salt water, but for several reasons given in Appendix B, are to be interpreted in this case as lagoon-dwelling. These include the mussel *Mytella falcata* and the oyster *Ostrea columbiensis*, both common in the Ocós phase and both restricted today to lagoons, and, in Conchas times, *Amphichæna kindermanni* Philippi (identified by William J. Clench as a brackish water inhabitant from a far greater valve size than is usual in salt water specimens), *Polymesoda radiata* (a type of marsh clam), and *Iphigenia altior*, another species that is happier in lagoon situations. These exist in large numbers and, in the case of *Amphichæna*, probably by the millions in the deposits at La Victoria. Therefore, it is highly improbable that the village was in ancient times situated very far from rich sources of brackish water mollusks, that is, lagoons or estuaries. The site today is, however, three kilometers from the nearest lagoon, that in back of the village of Ocós. It is hardly likely that Ocós and Conchas people would have traveled so far to bring back so many mollusks. Other evidence shows that they had the required brackish water next door, so to speak.

Even a cursory examination of aerial photographs of the Ocós area reveals that very profound changes have taken place in the past along this part of the coast. In back of the modern beach which runs from northwest to southeast, to the west of the mouth of the Río Naranjo, are the remains of what are certainly older beaches, lying exactly parallel to the modern one. The village of Ocós lies on one of these, and the little inlet or lagoon in back of it is obviously the remnant of a once large system. This ancient system, perhaps itself concealing other beaches beneath the vegetation, shows up as a wide, dark strip on the photographs. On the ground, one sees that it is filled with an almost impenetrable mass of mangroves and floored with mud. Again, an abandoned beach runs all along it on its northeast margin, indicating that the coast in the distant past also ran in a northwest–southeast direction. On the inland side of this beach one finds traces of a further lagoon-estuary system, surviving only in the form of remnant ponds indicating where the fingers of estuaries had once been. Further west, about half way between Ocós and the mouth of the Río Suchiate, is situated the broad outlet of an extensive complex of estuaries which opened out into this latter lagoon, and which is now defunct. Several branches of it extend inland to the northeast for several kilometers, and are clogged with mangrove thickets. Occasional remnant ponds still can be seen. In the upper reaches of these branches, which can be easily traced as they are not cleared for pasture, other bushes and trees take the place of the mangroves, and it would appear from the photographs that intermittent streams or perhaps even the meandering Naranjo sometimes ran through them to

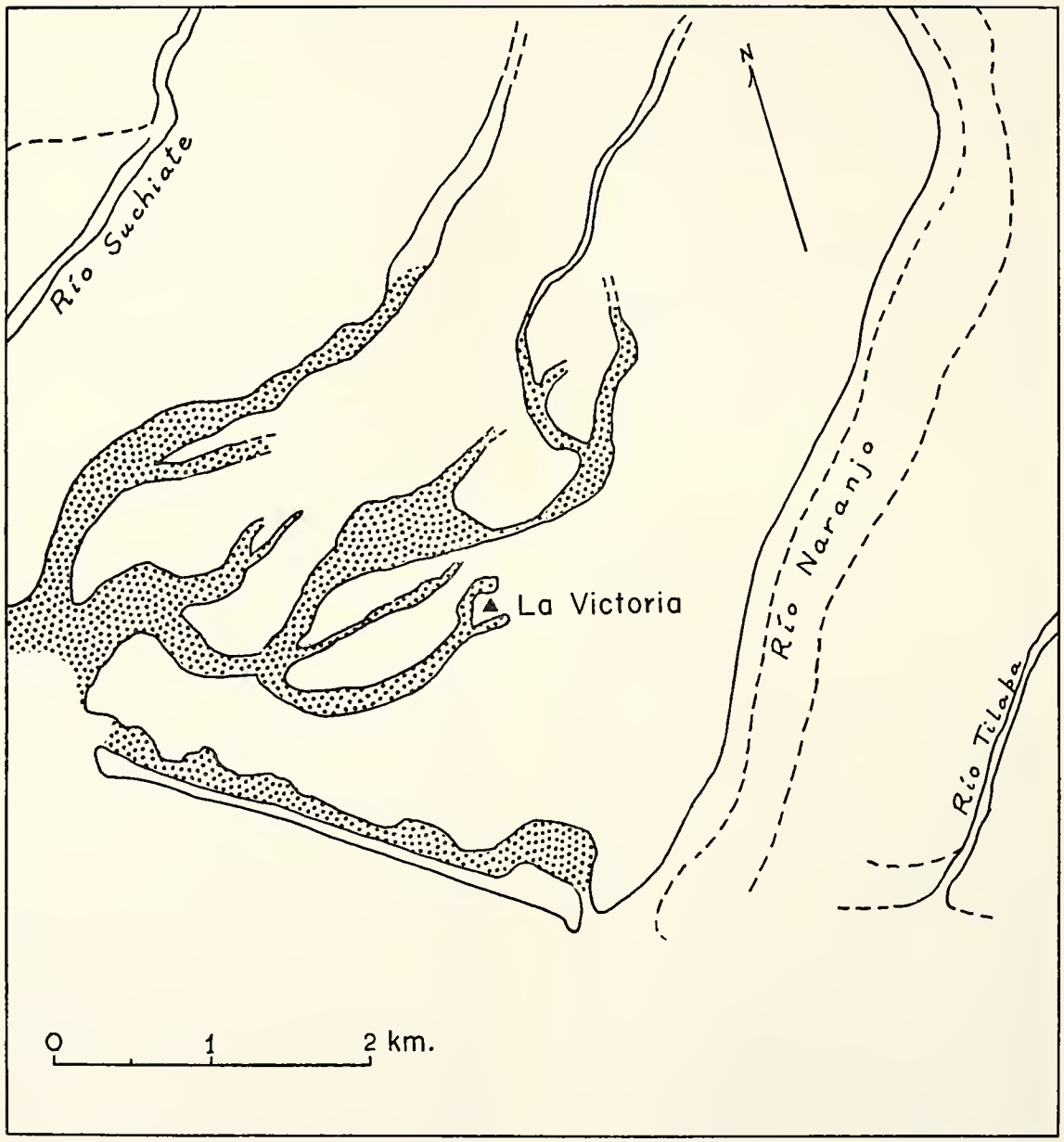

Fig. 11. Map of the ancient landscape at La Victoria, reconstructed on the basis of aerial photographs. The stippled areas indicate former estuaries which probably were lined with mangroves. Compare this map to figure 2, which represents the modern landscape, at the same scale.

the southwest. Tidal influence, bringing in salt sea water mixed in the lagoons with fresh water, would probably have been felt for at least three kilometers up these branching estuaries.

La Victoria itself lay between two fingers of the southeasternmost branch of the ancient estuary system. The photographs make it positive that the *bajos* lying to the west and south of the elevated stretch of ground on which the village was situated are the fossil remnants of estuaries, from which the ancient inhabitants

during the Ocós and Conchas phases obtained brackish-water mollusks. By means of the same estuary system they also could communicate with the former lagoon in dugout canoes paddled to the southwest down the various branches, except during low water periods. The banks below the village and throughout the system were covered with mangroves drawing their sustenance from the muddy bottom. The higher land away from the village and the estuaries was presumably utilized for the cultivation of crops like corn, beans, tomatoes, squashes, peppers, and so forth.

The geological and, perhaps, man-made processes resulting in the modern coastal landscape have probably been very complex. The coast is prograding, that is, extending itself out, by a combination of alluviation and beach-building. As outlined in chapter 1, the silts and other detritus carried down from higher altitudes to the coast by the braided rivers are deposited by swift lateral currents (running either in a southeast or northwest direction) as coastal bars, behind which are lagoons. Due to the mud-catching qualities of the mangrove plant, these lagoons are in time thoroughly clogged and turn into impassable mud-and-mangrove jungles into which penetrate small inlets from the river. This is the status of the now dead lagoon behind the northwest of Ocós. After more time has elapsed, another bar is built up, with the old one now forming a fossil beach inland from the lagoon. Thus, from this point of view, the coast is of the typical low energy type, "generally of low relief with shallow lagoons and embayments" (Davis, 1956, p. 505). No other processes are needed to explain the presence of fossil beaches and lagoons. Other processes, however, have been and are important. Isostatic changes in the land surface have taken place only recently (cf. the disastrous earthquake of 1902) due to tectonic upheavals; no one could say with certainty that they did not also occur in the past. Another possible isostatic change would be the unproved but possible lowering of the surface by the great weight of overlying silts deposited during the meandering of rivers and streams.

A further factor which must unfortunately remain on the level of speculation consists of the eustatic lowering and raising of the sea level through world-wide climatic change. During the period of warmer temperatures which lasted from about 5000 B.C. to 2000 B.C. sea levels are said by some to have been significantly higher than those of today, but this is by no means certain (Flint, 1957, p. 263). That the land was once lower in relation to the sea along the Chiapas-Guatemala coast is certainly indicated by the fossil estuary systems which are found along the littoral, far in back of not only the modern but even earlier beaches. These have every appearance of having arisen due to a minor "drowning" of the coast, when brackish-water estuaries could penetrate much further inland than in recent times. The above-mentioned estuary system at La Victoria would have been founded, therefore, during a time of isostatic lowering of the land or eustatic raising of the sea or both. Exactly when this occurred cannot be determined at present, although from archæological evidence it must have been before 1500 B.C. Modern tectonic changes brought somewhat the same situation about when, in the 1902 earthquake, most of the Pampas de Huamuchal, on the other side of the Naranjo, were suddenly lowered and submerged under the sea. Later deposition of pumice and silts from the river, plus the growth of mangroves, has built up a swamp in the region, but the old Tilapa River has been lost in the process.

The old estuary system probably began clogging up during Conchas 2 times, indicated by the drop-off in the quantity of mollusks consumed. This could, of course, be partially due to exhaustion of the crop by overpicking, and certainly did occur as far as oysters, mussels and *Strombus* are concerned in the Ocós phase. Nevertheless, the hand of man has surely not played the only role here. Silting up of the various fingers of the estuaries would finally result in the formation of stagnant ponds, perhaps by the end of the Conchas phase, which not only would have killed off a rich source of food, but also have provided excellent breeding sites for *Anopheles* mosquitoes. It would be tempting to envisage the sudden drop in occupational debris at the village, following the Conchas phase, as a result of a decline in the food supply combined with an increase in malaria. By the time of the Conquest, the actual Pacific littoral was practically

depopulated as compared with areas further inland, almost certainly due to the virulence of the malaria fostered by these choked estuaries.

Considering temperatures alone, the climate of the region has probably not changed drastically from the early Ocós occupation up to the present. Mollusks, which are fairly sensitive indicators of temperature changes, are without exception the same as those that now inhabit this part of the coast, and no other animal species found at the site appears to be out of its modern range. On the other hand, rainfall may have fluctuated in the past. The warm period, generally dated to a span sometime between 5000 and 2000 B.C. (the Hypsithermal of Flint, 1957, the Altithermal or Climatic Optimum of others), was markedly dry in the Valley of Mexico (Flint, 1957, p. 233) and probably elsewhere in Middle America also. The peak is believed to have been reached between 4000 and 2000 B.C. Some time after 2000 B.C. began a colder and wetter interval in the world's climate (the Sub-Atlantic phase), with the coldest and stormiest weather in Europe around 850 B.C. and in the southwestern United States about 450 B.C. (Willet, 1949). At this time, the climate was undoubtedly wetter in Middle America also, but by the Late Formative (Teotihuacán I) in the Valley of Mexico, a period of low rainfall had again set in (Sears, 1951). By A.D. 400 the world's climate had entered a second "Climatic Optimum" which lasted until A.D. 1000, with dryer conditions. From that time until late in the 19th century, a period of climatic deterioration followed. The Ocós people, if the phase begins around 1500 B.C., would have benefited by increased rainfall, while an unusual amount would have been available to Conchas farmers, more than known for the region today. The decreased precipitation which set in perhaps around 300–200 B.C. may well correlate with the end of Conchas, which in its day represented the heaviest occupation of the site.

A resident of La Victoria, then, during Conchas time would have been able to look beyond to a tidal estuary, where, through clearings in the mangrove thickets, he could have seen his dugout tied up on the muddy bank, waiting for the change in the tide. In another direction extended his corn field, perhaps only to be seen through ceibas and other large trees now gone from the landscape. Add, to this, primitive huts with thatched roofs, the sound of women grinding *maza* on metates, innumerable barking dogs, and a blistering hot sun, and the affinity of the ancient and modern ways of life along the Pacific coast would be immediately apparent. A present-day Ocós fisherman or farmer would only be amazed at the size of the estuaries and the greater number of large trees.

ANCIENT CULTURE IN THE OCÓS AND CONCHAS PHASES

The Ocós Phase

Since it appears to me that the excavations did not take in the main area of Ocós occupation, there is really very little that one can say about the way of life in this early phase. Scattered lumps of adobe with impressions of poles and straw indicate wattle-and-daub structures, but neither the house foundations nor any other traces of the actual houses were found. Ocós debris rests directly on a layer of sterile yellow alluvium that may be underlain by earlier remains, and in pits and depressions within it that seem to be man-made and perhaps were used for cooking. Certainly, the remnants of a hearth deep in one pit would suggest such a use. There is no evidence for the community pattern of this phase.

We have definite knowledge about at least one part of the economy of the Ocós people: that is, about the great importance of the products of the estuary as food. They concentrated their attention on the gathering of species of large size which would give them the most nutrition for the least effort, especially on oysters (*Ostrea columbiensis*, the valves of which are far bigger than in most modern specimens), mussels (*Mytella falcata*), and the strombus (*Strombus galeatus* Swainson), the latter obtained from the ocean shore off the coastal bar. The absence of these species in later deposits implies that either they decimated the numbers by overpicking, which is most likely, or else ecological conditions became unfavorable. Two other estuary species sought were the bivalves *Polymesoda radiata* and the

very tiny *Amphichæna kindermanni* Philippi. Trips were made to the outer beach, for they ate not only the strombus but also the univalve *Agaronia testacea*, which had to be dug from their burrows in the sand. Moreover, occasional valves with crinkly edges such as the ark shells *Anadara grandis* and *Anadara perlabiata* and the smaller bivalve *Anomalocardia subrugosa* were probably picked up from the beach for use in decorating pottery. Today, the women and children of the village hunt shellfish on the beach and elsewhere, and probably this was their task during the Ocós phase.

Turtles were another product of the estuaries, but the weapons, traps, or ruses used to take them are unknown. The modern Miskito Indians, living in a very similar ecological situation, use large nets suspended from floats for the purpose (Conzemius, 1932, p. 68). There is no evidence of fishing, but it must have been practised. Notched sherds suggest their use as weights for fish nets.

Besides turtles, land mammals such as deer were hunted, presumably by traps, snares, or nets, as projectile points are totally absent. The domestic dog was known and perhaps used in tracking.

The evidence of corn or any other kind of agriculture is purely inferential. Crude milling stones, merely slightly reworked river stones of adequate shape which can hardly be called metates, would have been used to grind lime-soaked corn into *maza* if the analogy with modern-day practice is correct. Tortilla griddles (*comales*) are not present, so if corn was grown and so prepared, it must have been eaten in the form of boiled or steamed dough balls or *tamales*. Stone bowls, mortars, and pestles were also used in the preparation of foods, but whether wild plant seeds, corn, peppers, or some other vegetable product was so ground up is not known.

Pottery containers were produced in quantity and are noteworthy for the attention lavished on each. The potter was in contact with many sophisticated ideas common to not only other areas within Middle America but also outside of it, and she responded with some new decorative features which seem to have been her own invention. Whether any of these vessels were used to cook food is uncertain, but if so, then probably the flat-bottomed dishes were so used. The same form seems a likely candidate for a container from which the cooked food was taken with the fingers during a meal. Neckless jars, particularly the tripod variety with iridescent rim, were probably used for storage, although a few tripods show signs of having been placed directly in the fire. It is certain that foods were also cooked in pits, and this may have been the primary method.

A major problem both to the ancients and to the archæologist is that of drinking water. Where did it come from? Either, like the modern farmers, they dug wells, or else the women hiked all the way to the river and back with water jars on their heads. The latter must have been a long and tedious process in the hot sun. I would suggest wells, which need not have been very deep if the water table was approximately what it is today (away from the mounds, about 4 meters deep). The pit in E–3 and E–4 may originally have been such a well.

Widespread trade is a certainty, the basic means of communication most likely being by sea. This important economic activity is discussed in a subsequent chapter.

Unexpectedly, there is a fair amount of evidence of the textile art in the Ocós phase, preserved through decorative impressions on pottery. A fine, plain weave cloth, 1 x 1, was manufactured, almost certainly from cotton yarns; some may be 2 x 1 plain weave, and a few impressions suggest the use of a twill (either over 2, under 2, or else over one, under 2). It is problematical in what form this cloth was worn, for the only Ocós figurines extant show absolutely naked females. By Conchas times, we do know that wrap-around skirts were worn, and such may have been the case in the Ocós phase. A large variety of cordage also appears in the form of pottery impressions, some of it amazingly fine. The fiber could have been agave in some instances and cotton in others.

Besides the question of clothing, there also is no evidence of the presence of any other kind of decoration; ear ornaments are absent in the debris and do not appear on the pottery figurines. A fancy coiffure appears on certain figurines, one lady having had her hair worked into two little horns above the forehead.

All that can be identified as possible ritual paraphernalia are the female figurines themselves, perhaps, as suggested by Séjourné (1952), representing a farmers' cult. The lugs in the form of an alligator's head and some carnivore may also have something to do with religious beliefs, but we are here indulging in pure guesswork. Before we put the Ocós people in the "Village Formative" pigeonhole, it should be emphasized that a large mound to the north at Villa Angela (*see* Appendix D) may have been their ceremonial center.

We have, then, a people living at the head of an estuary system who certainly were dependent on the products of brackish water and, with less certainty, on agriculture in fields away from the water.

The Conchas Phase

This being the major occupation, there is far more information available on the way of life for Conchas than for Ocós, not only on community pattern but on many other aspects of the ancient culture.

Wauchope (1938, p. 152) estimates the average life for a house among the ancient Maya to have been from 20 to 30 years, or a little more than a generation. If this figure also holds true for La Victoria, and if the Conchas occupation lasted for about 500 years, then the remains of around 20 successive houses are within Mound III. Either Wauchope's figure is too short, or mine too long, for it hardly seems possible from the quantity of debris, even taking into account the disappearance of perishable structures, that so many reconstructions could have taken place. Of course, it is not necessary to assume that Mound III was *always* the site of a structure throughout the Conchas phase. It could have been used as a refuse dump during intervals of abandonment following the death of a member of the household. At any rate, it is possible to give a fairly good but not complete picture of a Conchas house from remains in Mound III.

Foundations varied from simply pounded-down shell layers to actual clay floors. One clay platform is known for Conchas, a roughly rectangular structure oriented to true north and south, with a length of at least 8 meters and a height of 60 centimeters. It was constructed by covering a core of pounded earth with a coating of clay, the latter being covered over with more coats at later times. Slight indications exist of post molds in this structure. Poles were, however, placed according to the outline of the future house, which had rounded corners but was not apsidal. It is probable that a thatch roof was built at this time. Between the upright poles and parallel with them were arranged either split canes, overlapping each other, or finger-sized poles, placed so as to touch each other, for the walls. These were probably lashed to the main poles with vines or cords. Then, wet mud heavily tempered with grass was pressed onto both the inside and outside surfaces of the cane or pole wall, and later smoothed off to form a thick and weatherproof surface. After the sun and air had thoroughly dried the adobe, it was whitewashed with white plaster or clay, presenting a gleaming white exterior.

In the house were probably beds of poles, like those used today in the village, various storage and cooking pots, and possibly wooden stools to sit on with a pottery stool reserved for the head of the family. The kitchen was outside.

These houses were arranged at random in the village. If a recent comparative study of ethnographic community patterns is valid here, then the actual social structure of the village most probably consisted of a multilineage system (Chang, 1958, p. 306). Certainly, authoritative community planning is not indicated; on the other hand, a loosely organized social structure does not necessarily follow from this. There may have been anywhere from 80 to 100 persons in the village in Conchas times.

The balance maintained between "Archaic" and "Formative" economies at La Victoria is nowhere so clear as in Conchas. The estuaries at this time provided large quantities of mollusks, especially *Amphichæna kindermanni* Philippi and *Polymesoda radiata*, plus a variety of fish (including catfish and larger species), and turtles in great numbers. Other and less important mollusks like *Agaronia testacea* were sought on the sandy beaches of the coastal bar and between tides. Again, we are in doubt as to how these were taken. Mollusks could be scooped up from the estuary mud without much trouble, probably by the women and

children, but for fishing we have no knowledge. Today, small hand nets with weights attached are thrown out over the water from canoes and then pulled in by a string attached to the center (fig. 44, *top, right*); the frequent notched sherds in Conchas deposits may have been used as weights with such nets. There are no Conchas fishhooks, but catfish spines could have been used in composite hooks, or thorns may have been so utilized. Other possible methods, perhaps most applicable to fishing in the nearby rivers and still in practise today, are fish poisoning and the use of basket traps. The modern inhabitants of the Mosquito coast are said to make fish jump into canoes by banging the sides with paddles near the shore (Conzemius, 1932, p. 71). Turtles could have been trapped in seine-nets, as previously described.

Extensive hunting was also done, but, again, projectile points are absent. While fire-hardened darts or spears could have been manufactured, it is more likely that traps and snares were the techniques used. Both deer and small mammals were killed. The dog was present in Conchas as in Ocós, and possibly was used in driving game into nets or toward bodies of water where they could be clubbed to death. Hides were worked with obsidian scrapers.

Besides collecting mollusks, crabs, and other shellfish, the women and children, as in most primitive tribes, undoubtedly foraged for various seeds, roots, wild fruit, and other plant foods in the forest.

It would be hard to believe that corn farming was not present, although no actual remains of cobs, etc., were found at the site. As in Ocós, the evidence is indirect, resting on the metates and manos (better made in Conchas) which everywhere in Middle America are used to grind *maza*. If the Conchas people were not developmentally Formative, they would be the only Archaic culture to have manufactured so much pottery; such an output by its very nature implies a stability that could only be the result of food production. Moreover, in the partly contemporary Las Charcas phase in the Guatemala highlands, there are actual charred cobs present. As mentioned in chapter I, 5 to 6 acres of milpa are required for the sustenance of one modern household in this environment. With 10 households likely for the Conchas phase, about 50 to 60 acres were in use at any one time as farmland owned by the villagers.

Stone and sherd-lined hearths were located outside houses; perhaps brush shelters were built over them. Some food was prepared in specially dug pits, with a fire at the bottom and sometimes with heated stones, a covering of brush over everything. Fish wrapped in leaves could easily be steamed by such a method, and pit-cooked foods are still a favorite with the modern Maya. Larger bivalves like *Polymesoda radiata* could be steamed or roasted open, but the tiny size of the *Amphichæna*, which exist in untold numbers, makes it probable that these were boiled up in water, and the actual animals which would become detached strained out for eating (as suggested by W. J. Clench). The present-day inhabitants make a sort of broth or *caldo* out of *Amphichæna*, but this is wasteful of what would otherwise be a good source of protein. In the absence of *comales*, corn *maza* was probably shaped into tamales, boiled or steamed, and eaten as such. The stone pestles along with the tripod grater bowls with scored bottoms most likely were used to grate *chile*, a function which the same implements serve today in highland Mexico. From the number of burned fragments of carapace, turtles seem to have been roasted directly in the fire or coals. Methods of preparation of other meats are unknown.

It may seem somewhat sensational to say that cannibalism also provided an extra source of protein, but such seems to have been the case during the Conchas phase. Large numbers of very small fragments of human bone are scattered through the kitchen refuse, often burned, and mixed up with animal bones and fragments of turtle shell. Either the Conchas people disposed of their dead in an unheard-of way, or else they actually killed captives or slaves and ate them. The broken-up and burned aspect of the bones precludes a possibility that older burials had accidentally been disturbed by later occupants. Moreover, no actual cremations are known.

Large, well-made Conchas Red Unburnished neckless jars were the main storage vessel, perhaps for both water and grain, and, occasionally, appear to have been used for cooking. A few Conchas White-to-buff dishes show

definite signs of having been placed directly over the fire during food preparation, but most dishes were probably used, as among us, for serving food.

Tools mainly emphasize woodworking, such as sherd abraders, pumice smoothers, axes and celts. Many artifacts of wood, certainly including wooden vessels and carvings, have been lost to us through the destruction of time.

Containers of twined basketry have been indicated by accidental impressions left on pottery vessels during the process of vessel production. Large amounts of pottery were manufactured either at La Victoria or in a not-distant village. In this pottery, as in that of Ocós, coiling was the only method of construction of which we have knowledge.

Trade, evidently on the same scale as that of the Ocós phase, was carried on, especially across the Isthmus of Tehuantepec, with the peoples of the Gulf Coast and perhaps with both the Guatemalan highlands and the Central Depression of Chiapas. As in historic times, much of this trade was probably along the coastal lagoon system. The merchants would have had to carry canoes laden with merchandise across portages. The available evidence suggests continued sea trade with Ecuador, perhaps more intense than in Ocós (Coe, 1960).

The large variety of Conchas figurines offers us some idea of female dress and decoration. If these little productions are reliable sources of information, Conchas women usually went naked. A wrap-around skirt or sarong could be worn. However, this extended from just below the navel to just above the knees, and was wrapped counterclockwise around the body, with the loose end partially tucked in at the left hip, a corner hanging out. It was probably of white cotton (being painted white on figurines). Footgear was never worn. Ear spools were universal, at least among the women, and were of fine polished pottery, greatly distending the lobes. Solid clay ear plugs and fish vertebræ ear spools were worn. Necklaces were so rare as to be nonexistent, and only one jade bead is known for the whole site. One figurine shows a ropelike necklace hanging down almost to the navel, and it may have been just that. It is difficult to distinguish between coiffures and headdresses, but probably most fancy head decoration represents the former. Clumps of hair are emphasized, especially a "hairdo" with one central banglike lock coming down, often with two further locks above the temples on either side of the head. Some figurines (FE–1–a) indicate the use of a band to tie up part of the hair so that it falls over in a lock toward the front. Simple bangs directly over the forehead may also have been common. A few women seem to be wearing turbans.

Apparently, from the evidence of the figurines, women were usually decorated with face and body painting. This was largely in red, but sometimes in black. The red could have been hematite, which was ground on river cobbles, although *achiote* (*Bixa orellana*), grown today in the region and used by many Tropical Forest tribes for the purpose, may have been used. The present-day Mosquito Coast tribes employ *achiote* for the red, and a tree gum, such as rubber, for the black (Conzemius, 1932, pp. 24–25). The figurines show that the usual extent of the red was over the lower part of the face down to the neck and shoulders; on the hands; on a circular patch at the navel; and on the feet. Black was occasionally applied to the areas around the eyes and on the forehead. That fancier decoration existed is proved by the presence of roller stamps of pottery which almost certainly were used to roll geometric patterns in pigment onto the skin. The effect of a bright red design on coppery or chocolate-colored skin must have been pleasing.

Very few inferences can be made with confidence about Conchas religious beliefs and practices. The generally nude female figurines, so common at the site, may, as previously stated, be associated with a simple cult of crop fertility. The frequency of obviously pregnant individuals would bear this theory out, but an interest in the sexual aspects which are commonly linked to concepts of this sort (for instance, the *yakshi* cult in India) appears to have been lacking. A crude calculation suggests that one or two figurines were made each year per household and that they may have been, like the Lares of ancient Rome, important in family ceremonies. Occasionally, more mysterious concepts are implied, particularly in the pottery ring with two faces (fig. 42, *a*), one of which is partially masked. This and an

imported baby-face figurine link Conchas with cult centers in highland Tlatilco and the Gulf Coast. While there are no temple mounds at La Victoria that can be identified as such, a large mound at Santa Clara, 13 kilometers to the north, can be ascribed to this phase, and it may be inferred that La Victoria and other Conchas villages were linked by a larger ceremonial center. It is possible that the great mounds of La Blanca, across the river and as yet unexplored, may also belong to this phase. Periodic destruction of all household goods and other artifacts was practised, indicating renewal ceremonies like those of the Mexicans and the Maya.

The few burials found in Conchas deposits are extended, but without definite orientation and totally deficient in offerings. It may be that more extensive excavation at the site would disclose richer burials, but with the evidence at hand it may be stated that the disposal of the dead did not include the placing of possessions or other valuables with the body. All known burials were encountered in midden debris, below the floors of houses. If Burial 1 is Conchas 1 in date (it may be Ocós), then execution of individuals was practised by bashing in their heads with pointed stones, following which they were hurled face down into a shallow grave and hastily covered up, without offerings. Since the young adult in question was female, it is of interest that the Maya at the time of the Conquest killed the male of an adulterous pair by throwing rocks down on his head from a height (Tozzer, 1941, pp. 123–24). Perhaps the authorities at La Victoria visited such punishment on females for the same sin.

We may envisage in the mind's eye, then, a compact little community of ten or so houses with thatched roofs and gleaming white walls. Some of the men would be engaged in fishing and turtle-hunting from their dugouts in the nearby estuary or hunting with dogs and nets in the forest, while others would be tending the corn in milpa clearings. A few women and children, knee-deep in estuary mud, would be feeling around for mollusks, and putting them into baskets, while other women would be grinding soaked corn in the houses. The possibility exists that some households, as in Ocós today, were strictly fishing households, and others were confined to farming, so that for a fish caught the previous night in the estuary, a farmer would trade so much shelled corn or dried *chiles*. The simple and yet self-sufficient economy of this little village during Conchas times was probably repeated in dozens, perhaps hundreds, of similar villages all along this part of the Pacific Coast, forming a larger network of communities which were undoubtedly united by trade in pottery and other less durable products.

It is a picture which can be duplicated throughout Formative cultures of the New World and among the Neolithic villages of the Old World, but where Conchas parts from these is in the retention of a greater increment of Archaic-Mesolithic features. Practically all early farmers continued to do some hunting, but when activities of this sort reach equal status with food production, the culture retrogrades to an earlier condition (cf. the decline of Danubian farming and the increase in "Mesolithicness" during Period III). With the practically inexhaustible resources of the estuaries near at hand, however, the Conchas people were able to retain their thoroughly sedentary way of life in spite of a heavy dependence on nonproduced foods such as turtle and mollusks. It is the abundance of the food supply and the sedentariness of the food quest which is all-important as far as cultural development is concerned. Willey and Phillips (1958, pp. 135–37), in response to a letter from McKern, make much the same point when they classify Northwest Coast culture, in spite of the absence of agriculture, as Formative rather than Archaic. Conchas, and perhaps Ocós, added to an already abundant natural food supply the high energy potential of corn farming, resulting in a long-lasting community of completely Neolithic-Formative aspect, but with a mixed economy.

Chapter XI

LA VICTORIA AND THE FORMATIVE CHRONOLOGY OF MIDDLE AMERICA

INTRODUCTION

SEVERAL recent works have offered more or less complete surveys with chronological charts of the abundant Formative materials throughout Middle America (Wauchope, 1950; MacNeish, 1954; Sorenson, 1955; Coe, 1957b; Piña Chan, 1958). With the exception of Coe, 1957b, which is based upon a correlation of Sorenson's chronology with radiocarbon dates, these works attempt to order the phases of the various regions by means of explicit schemes.

Both MacNeish and Wauchope independently utilized quasi-statistical methods for such purposes, that is, enumerating a host of traits and then checking them off for presence or absence with specific phases. There are many dangers inherent in such a methodology. The most serious of these is the equal weighting given to all traits regardless of simplicity or complexity of the features enumerated. Since these authors are attempting to line up phases as more or less contemporaneous, shared traits can quite rightly be used to indicate diffusion of some sort, but these must be of sufficient complexity to be convincing. The correlation of two phases on the basis of shared traits of such simplicity as incision, cross-hachure, white monochrome, and so forth, with columns of X's to give substance, creates a picture which may be totally false. On the other hand, the sharing of such unique and highly complex features like negative painting, rocker-stamping, or mammiform feet should certainly indicate some connections through diffusion and be considerably more valuable, as such, than overly simple traits, such as incision, which in many cases are almost universal among all peoples who make pottery. Another danger inherent in "presence-absence" trait lists lies in the inadequacy of the information in almost all cases. Wauchope (1950) has presented an influential theory of Formative cultural development abstracted from his analysis, since phases which appeared to be early on his charts seemed to be without temple mounds, whereas later phases obviously had them. The progression from "Village Formative" through "Urban Formative" (called "Temple Formative" by MacNeish, 1954, p. 619) to a Proto-Classic rests on the unwarranted assumption that if no mounds have been found for a phase, then they do not exist. Taking two supposedly early and "Village Formative" phases, such as Mamom and Las Charcas, it is doubtful whether mounds of the Mamom phase have ever been actively sought in or near the Petén (what would one look for?), or whether they have not been covered up by the prolific architectural activity of the Classic. Regarding Las Charcas, there are still dozens of uninvestigated mounds at Kaminaljuyu, and at least one of them (in the so-called "Coca-Cola" mound group) has on its surface nothing but Las Charcas sherds. I have reasons to believe that Ocós is earlier than both these two phases, and yet it is almost certain that several kilometers north of the village was a temple mound of the phase. While it cannot be denied that the mounds ascribable to the later part of the Formative are more spectacular than those earlier in the stage, it would seem desirable to delay the formulation of elaborate socio-developmental schemes for the Formative until we know more about the content of the phases and their relative chronological position within the stage. The third and worst danger is the assumption, never proved in the ground, that the simpler the pottery, the earlier. La Victoria provides a sequence which shows just the opposite taking place.

The methodology of Piña Chan, in his recent work on Tlatilco (1958), also must be

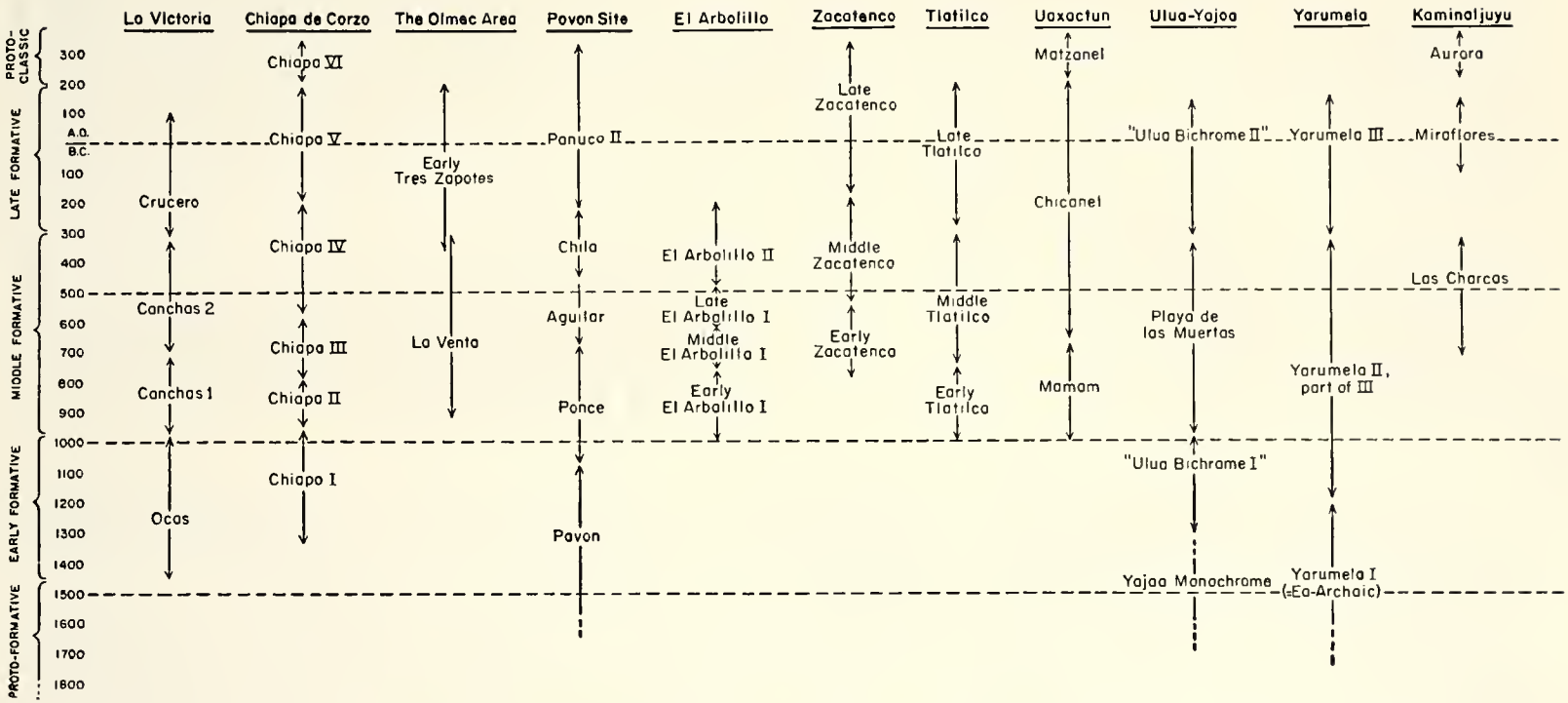

Fig. 12. Chronological chart of Formative sequences in Middle America.

analyzed cautiously. His division of the Formative into three parts—Early, Middle, and Late—was presented in a work on the Valley of Mexico (Piña Chan, 1956), and there is little reason to quarrel with such a scheme except to indicate that, in many cases, his assignment of a phase to one or the other of these divisions is based not so much on stratigraphy but on the "presence-absence" trait lists and developmental scheme of Wauchope. In the Tlatilco volume, however, he goes further and presents an over-all evolutionary ordering of the Formative ceramics by organizing them into supposed trunks and branches of major wares. The theory behind such a methodology seems to be that slip colors have a life of their own, dividing up into different ones, which then mate to produce heterozygotes and homozygotes, and so on ad infinitum (Piña Chan, 1958, pp. 109–11):

> El tronco Rojo pulido se origina en el Preclásico Inferior y evoluciona al tipo Rojo pulido tardío o Ticomán. El mismo tronco se combina con el tronco Blanco pulido para dar los tipos Rojo sobre Blanco y Blanco sobre Rojo, último que a su vez da lugar al Blanco sobre Rojo tardío del Preclásico Superior.

The final results of such imagined processes are incorporated in a chart labeled "Evolutionary scheme of the ceramics of the Preclassic Horizon." The fallacies and dangers of "family-tree" schemes, in which red slip meets white slip and produces red-on-white, are too obvious to belabor here and have been thoroughly discussed by Brew (1946). In this same book, Piña Chan again adds a "presence-absence" correlation chart, and it is clear from this that his three divisions correspond to Wauchope's developmental stages.

Sorenson's approach is the soundest of all of these. He is careful to use *significant* traits of some complexity only, without loading up on possibly false coincidences of simple features. "Presence-absence" lists are avoided, and correlations are advanced from an analysis of qualitative features shared by pairs of phases. More recent excavations demand a change in the position of some of the phases. For instance, Early Zacatenco and El Arbolillo I in the Valley of Mexico and the entire sequence in Kaminaljuyu from Las Charcas through Arenal have all been placed in impossibly early positions, while La Venta appears to be a little late. These are minor quibbles, however, and with a few revisions and additions the chart still stands as valid; at any rate, from the point of view of the Chiapa de Corzo and La Victoria excavations, it makes excellent sense.

My own chart (1957b), which drew heavily from Sorenson's work, should be discarded. Too much reliance was placed on early, solid-carbon dates, which cannot be accepted uncritically since in many cases the samples had been collected badly or had sat around on museum shelves for too long. Furthermore, I fell into the error of placing Mamom and Las Charcas somewhere around the beginning of settled life in Middle America. Sorenson had already demonstrated the middle position of the former phase, and the recent radiocarbon dates for Las Charcas move it up to a position where it fits the comparative data from other areas.

The present chapter is not a completely new ordering of the Formative, but indicates some of the changes, in the light of recent work, which must be made in Sorenson's scheme. The findings are summarized in figure 12. The great gap in our knowledge about this stage results from the actual paucity of published sites with two or more Formative phases which have been ordered from a reliable stratigraphy. Very few of the proposed sequences in a given area are really based upon materials which are superimposed in the ground at a site. These can be enumerated as: *1*) the Pavon site; *2*) Zacatenco; *3*) El Arbolillo; *4*) Gualupita; *5*) Yucatan sites; *6*) Uaxactún; 7) Chiapa de Corzo; and *8*) La Victoria (this report). With only eight or so stratigraphic columns, there is clearly going to remain a large amount of uncertainty for a long while in any relative chronology devised. Radiocarbon dates will help us in this, but must be viewed with caution since sampling and processing errors have continued to be a problem; many samples already run may not even date the phases to which they are supposed to belong, but earlier, redeposited material.

La Victoria is a site the correct placement of which within the early development of Middle America has important implications for New World prehistory. It is indeed a stroke

of luck that the New World Archæological Foundation has provided a sequence at Chiapa de Corzo to which La Victoria is closely tied, and that there are a series of what seem to be reliable radiocarbon dates for the Chiapa sequence. Further correlations with La Venta also make it possible to suggest absolute dates for our site, and these check with those of Chiapa de Corzo. Moreover, the intimate relationships of La Victoria with the long and well-established Formative sequence at the Pavon site on the Gulf Coast have provided a further check on the relative chronology suggested here.

CHIAPA DE CORZO

Correlation of the La Victoria sequence with that of Chiapa de Corzo is based on Lowe (1957), Dixon (1959), my own examination of materials in the headquarters of the New World Archæological Foundation in Tuxtla Gutiérrez, correspondence with Gareth Lowe, Bruce Warren, and Keith Dixon, and conversations with Carlos Navarrete.

Ocós and Chiapa I (that is, at least the earlier part of Dixon's Pit 50 period) are definitely coeval. They share the same type of figurine; practically identical shallow grooving on thin-walled neckless jars which are unslipped (although Chiapa I lacks the long tripods and iridescent painting); flat-bottomed dishes with thickened rims in specular red; rocker-stamping, but Ocós stamping is far more complex; oval lobes on neckless jars; and stone bowls. I am puzzled, however, that Chiapa I, Pit 50, had several features which do not appear at La Victoria until Conchas, such as red-and-coarse neckless jars which resemble Conchas Red-and-white shapes, white monochrome pottery with double-line-break motifs and eccentric rims, white bowls with outprojecting rims, and several other traits. The explanation may be that these traits are earlier in Chiapa I, or, that Chiapa I overlaps somewhat into Conchas 1 times. The latter is believed by Lowe and myself to be the most likely answer. Of course, the Pit 50 sample may include some actual Chiapa II pottery.

Chiapa II certainly correlates with Conchas, and, since it lacks orange ware, with Conchas 1. The sharing of almost identical white monochrome vessels, on which the most frequent form of decoration is the double-line-break, ties in the two phases even more closely than Ocós with Chiapa I. Found in both are: red-and-white bichrome; large neckless jars with double holes under the lip; the same range of worked sherds as Conchas; jars with low necks in unburnished red; what are almost certainly pottery stools; gray monochrome bowls with beveled rims and double-line-break grooving; and small red-and-white neckless jars. At the same time begins a development of closely similar figurines with large punched pupils. Chiapa II and Conchas (probably subphase 1) have certain resemblances to at least the earlier part of Mamom, especially in the sharing of the dish with outflaring sides, the rim of which is grooved or incised with the double-line-break motif, and the "A-type" figurine.

Chiapa III marks the appearance of orange monochrome at Chiapa de Corzo in what are said to be typically Mamom shapes. Orange monochrome comes into the La Victoria sequence in Conchas 2, but there appears in both phases Mamom-like and Chicanel-like forms together, without chronological distinction. What the origin of this orange pottery is would be hard to say. It is found distributed in a broad arc from the eastern Petén and British Honduras to Tabasco, down into the Grijalva Basin and over to the Pacific coast as far east as Champerico, perhaps even farther. To call it "Mamom" or "Chicanel" is to confuse the situation, for the Petén at that time may have been on the receiving end of orange monochrome from some more central point within this arc. Another confusing aspect of Chiapa III is that white monochrome is believed to be absent; at La Victoria, it continues to be made throughout Conchas.

Chiapa IV appears to be an early kind of "Chicanel," and is characterized by orange monochrome dishes with wide, everted and grooved rims of very Chicanel appearance. The exact form and decoration in orange monochrome is found in Conchas 2, but again white monochrome pottery is lacking in Chiapa de Corzo.

Crucero and Chiapa V are certainly coeval,

since they share the labial flange and S–Z angles on orange monochrome. These are also typical of Chicanel, but no distinction is made in the Petén between an early and a late part to this phase. On the chart, I have made actually constitute horizon markers, since they Crucero and Chiapa V contemporaneous, overlapping with the upper half of Chicanel. Labial or lateral flanges and S–Z angles on bowls may are found widely distributed throughout the late Formative in Middle America.

Chiapa VI and VII are Proto-Classic, with rich tombs stuffed with offerings, including Matzanel-related pottery and ceramic features such as mammiform feet, bridged spouts, stucco, and so forth. No Proto-Classic pottery has been identified at La Victoria.

THE PÁNUCO REGION

Ekholm (1944) and MacNeish (1954) have provided a long and sound archæological sequence at the Pavon site, based on actual dirt stratigraphy. To Ekholm's six phases, MacNeish has added three more at the bottom, based on material excavated by him in deposits of Pánuco I age and earlier.

The earliest phase, Pavon, resembles nothing else in Middle America save the "Eo-Archaic" or Yarumela I of Canby (1951, Ph.D. Thesis), both sharing a peculiar kind of overlapping reed-punctation. White monochrome bowls with scored bottoms do begin in this phase, probably earlier than elsewhere, and initiate a development which is to be typical of the Pánuco throughout much of its history. Pavon has been placed on the chart as starting earlier than Ocós or Chiapa I, for I believe that here we have, as with Yarumela I, a truly indigenous Middle American development, but perhaps continuing well into Ocós times. It seems likely that two figurines from Aguilar deposits illustrated by MacNeish (1954, fig. 22, nos. 5 and 6) belong to the Pavon phase and have been redeposited, for these are characterized by the same features as Ocós figurine heads and the Chiapa I (Pit 50) figurine illustrated by Dixon (1959, fig. 53, *b*): pinhole-pupils in narrow slitlike eyes and general crudeness.

The succeeding Ponce phase has clear correspondence both with Conchas I and Chiapa II (the latter reported by R. S. MacNeish in a recent letter). Tripod grater bowls of Formative date in white monochrome or any other kind of slip are, with the exception of Conchas, totally absent from the Grijalva drainage, the Petén, the Guatemala highlands, the entire Pacific coast, and neighboring areas of El Salvador and Honduras. They are, on the other hand, typical of the Pánuco area, where they are known in both white slip and black. The designs on the bottom of Ponce grater bowls are extremely close to those of Conchas 1 graters, emphasizing the "hub-and-spoke" pattern. The latter must come from somewhere near the Pánuco, where they go back to Pavon. The earliest shapes in Conchas 1, however, most closely resemble those of the next Pánuco phase, Aguilar. Furthermore, the slips from the Pavon site are far softer than those of Conchas. Hard white pottery almost unsortable from Conchas White-to-buff is known from the early site of El Trapiche near Zempoala. The diffusion process might be tentatively reconstructed as follows: tripod grater bowls and hard white monochrome itself appeared in Conchas 1 as the result of a diffusion, across the Isthmus of Tehuantepec, from a site not far from El Trapiche which had received simpler grater bowls from Ponce and developed them there into tripods. Tripods then filtered up to the Pánuco again, initiating the Aguilar phase. If such is true, then Ponce begins slightly earlier than Conchas 1, and overlaps with it. The shared Ponce-Chiapa II traits would confirm such a scheme.

Aguilar and Chila (Pánuco I) are even more Conchas-like in grater-bowl features, and I believe that these two correlate with all of Conchas 2.

Pánuco II, the final Formative phase at the site, does not show such specific relationships with La Victoria, but must be late Formative, and therefore coeval with Crucero, from the number of Z-angle composite silhouette shapes in the phase. The figurine heads of Pánuco II suggest affinities with Type D figurines from Tlatilco.

LA VENTA AND TRES ZAPOTES

The obscure method of presentation characterizing Drucker's reports on La Venta (1952) and Tres Zapotes (1943) makes it difficult to arrive at valid comparisons between the Olmec area and La Victoria. This is particularly true with Tres Zapotes, for there are at least three clear-cut occupations at the site: the first in the Formative, the second in the Early Classic (i.e., Upper Tres Zapotes), and the third an intrusive, and perhaps Post-Classic, complex. Not only are obviously redeposited sherds and figurines found in Classic levels, but most likely of Formative manufacture, considered to be products contemporaneous with the associated materials (thus hopelessly confusing the true sequence), but the entire history of the site is viewed as a continuum, without the possibility of long breaks in the occupation. Because of this, all pottery descriptions have been lumped together regardless of phase, so that illustrations of "Lower Tres Zapotes" ceramic decoration cannot be found. With La Venta, which in spite of its rather long series of radiocarbon dates seems to be but a single phase, the problem is not quite so acute, but pottery illustrations are still inadequate.

Therefore, I have relied on the unpublished 1955 paper of Green and on correspondence with Robert Squier, who has recently been reworking the Tres Zapotes and La Venta materials in the light of the new excavations by himself, Drucker, and Heizer at La Venta. Squier would combine Middle and Lower Tres Zapotes into a single phase, Early Tres Zapotes. He has divided Drucker's Upper Tres Zapotes into two subphases, one a short transitional subphase (presumably Proto-Classic) followed by a later subphase which has Early Classic, possibly Teotihuacán-derived features. La Venta, he believes, falls earlier than Early Tres Zapotes, with perhaps even a hiatus between the two. It would be pre-Mamom, while Early Tres Zapotes would fall on a Chicanel time level.

The excavations at La Victoria fully justify the placement of La Venta as a phase which begins earlier than Early Tres Zapotes. Conchas and La Venta share many features, particularly the dish with outflaring sides and groove-incised "double-line-breaks" on the lips; bowls with incised and beveled rims; pottery stools; identical forms of figurine bodies and limbs, with some head types shared; and a similar range of artifact types. It seems probable that all of La Venta is coeval with all of Conchas. Certainly, the long time range of the phase would suggest this. Early Tres Zapotes figurines appear as trade items only in the final part of Conchas 2 (these are types which incidentally are placed by Drucker as "Lower Tres Zapotes"), offering a sure foundation by correlation through provable diffusion.

Whether La Venta is really earlier than Mamom is difficult to decide at the present. The mutual sharing of the flat-bottomed dish with flaring sides and double-line-break motif would argue for at least some overlap. The Conchas evidence, moreover, would imply that La Venta not only continues through all of Mamom but also extends into early Chicanel times. The few plain rocker-stamped sherds in La Venta, which very closely resemble certain rocker-stamped sherds in Chiapa I, may actually indicate a partial contemporaneity of early La Venta with the later part of Ocós and Chiapa I. This rocker-stamping is quite different, however, from that of the Ocós phase, being unzoned and plain, but on the other hand it bears little resemblance to the Troyville-like stamping on Tlatilco vessels.

UAXACTÚN

The relative chronological positions of the Mamom and Chicanel phases in the Formative stage of Middle America have already been suggested in previous paragraphs. Mamom and Ocós have practically nothing in common save the presence in the former of a vessel with incision suggesting the raised ovate lobes of an Ocós thin-walled neckless jar. Some day, archæological material may be found in or under Mamom which is contemporaneous, but such is not present in the large type collections in Guatemala (*MNAE* Coll.). A few Mamom

figurine heads with pinhole-punched eyes do recall Ocós but most are clearly related to Conchas and Chiapa II through IV.

There is little reason to doubt that Mamom is on the same time level as that of at least part of Conchas, La Venta, and Chiapa II and III. Taking into account the presence of Chicanel-like orange ware in Conchas 2, the correlation must be with Conchas 1. Mamom and the latter subphase share dishes with outflaring sides and double-line-break grooving or incising, the cuspidor, composite silhouette bowls in black monochrome with horizontal fluting, and naturalistic figurines (one Conchas example is identical to a Mamom type). Furthermore, MacNeish (1954, pp. 617–20) demonstrates that Ponce and Mamom must be contemporaneous, and as already pointed out, this scholar sees close Ponce-Chiapa II relationships, as I see Ponce-Conchas 1 ties.

Conchas 2 and Chicanel are definitely correlated by the orange monochrome dish with grooved, everted rim. The distinction made at La Victoria and at Chiapa de Corzo between a phase with this form (Conchas 2 and Chiapa IV) and a later phase with labial or other lateral flanges (Crucero and Chiapa V) is not apparent in Chicanel, for these forms show up together in the deposits. Chicanel is a long phase and undoubtedly will be broken down some day, probably on the basis of the above distinction. The reported absence of figurines in Chicanel deposits (*RES*, p. 21) is extremely puzzling, as it would make this phase unique in the Formative. This negative trait becomes even more odd when it is considered that in San José I, a component in neighboring British Honduras which is all but indistinguishable from Chicanel and which contains no Mamom pottery, appeared 5 "Mamom"-like figurine fragments (Thompson, 1939, pp. 155–56) in what was not a very large sample. These are female torsos which could not be sorted out from Formative specimens in the Uaxactún collections. Either this was a freak occurrence at San José of truly Mamom figurines without any of the characteristic pottery, or else at least some centers of the Chicanel phase continued to make such artifacts.

WESTERN AND CENTRAL HONDURAS

La Victoria and certain archæological sites in Honduras, particularly in the Ulua drainage, show very interesting affinities. It is unfortunate that the relative stratigraphic positions of several important Formative phases are not well-defined, due to the nature of the deposits. For instance, Yojoa Monochrome, Playa de los Muertos Bichrome, and Ulua Bichrome are shown in that chronological sequence on the chart presented by Strong, Kidder, and Paul (1938, table 1), but it is pointed out by them that each occurs by itself directly underneath Classic polychrome in its respective site. Moreover, there is no way to ascertain from the data whether each phase is really that, or a mixture of several that in other circumstances might be stratified. Ulua Bichrome is one that I suspect consists of earlier and later materials, with a hiatus between. Some light was thrown on this question by the work of Canby (1951, Ph.D. Thesis), at the site of Yarumela in the Comayagua drainage, but in some instances his samples were too small to be of much use.

The earliest phase in Honduras, found at the base of Canby's excavations, is his "Eo-Archaic" or Yarumela I. Deposits of the phase lay directly on sterile soil, and featured extremely crude pottery, generally plates and small, simple jars. The plates have the rims thickened to produce raised edges, and look suspiciously like the manioc griddles of lowland South America. Jars are both necked and neckless. Decoration is rare, and is confined to a red washlike paint, crude incising, and fillets and appliqué knobs of clay some of which have been reed-stamped. "Eo-Archaic" pottery has a very primitive cast and really looks like nothing else in Middle America. About the only feature shared with any other phase is reed impression, which is found on the demonstrably early Pavon phase in the Pánuco area. I feel fairly certain that both of these represent an extremely ancient native Middle American pottery tradition that antedates the Ocós phase and therefore the arrival of Woodland influences from the north.

Yojoa Monochrome may represent an occupation of the region to the northwest of

Yarumela roughly on the same time level, but only a few hundred sherds are available for comparison. Many or most of these were slipped, but are now badly worn. Nevertheless, they appear to have been of a crudeness comparable with that of the "Eo-Archaic" and have few affinities with phases elsewhere. It is a possibility that this phase antedates Ocós.

Playa de los Muertos, in the Ulua Valley, is fairly well known both from the Strong, Kidder, and Paul report and from the report by Popenoe (1934) of excavations which she carried out in burials of the phase. Mr. John Glass was also kind enough to show me the materials now in the Peabody Museum, Cambridge. Conchas and Playa de los Muertos are clearly contemporaneous and they share a host of traits which have been enumerated in the chapter on pottery. Many, or most, of these features are also shared with both Mamom and Chicanel. Some traits are highly specific, like the bowl with beveled rim decorated with double-line-break grooving. This does not imply a complete identity between Playa de los Muertos and Conchas. Some ceramic forms, such as the jar with unbridged spout (shared with Mamom) and the bottle, are unknown in Conchas. The red-on-buff or red-on-natural pottery of Playa de los Muertos appears to be the counterpart of Conchas Red-on-buff, with very specific resemblances in this ware between the two areas. Furthermore, certain red-on-natural handled jars have punctate unburnished areas surrounded by red zoning, and very closely approximate analogous jars in Las Charcas. Playa de los Muertos I would, therefore, equate with all of Conchas, with Mamom and early Chicanel (the orange monochrome dish with labial ridge is present but not wide, everted and grooved rims or labial flanges), Chiapa II through IV, and Las Charcas.

Ulua Bichrome as a single phase is highly puzzling. Some of the pottery is definitely wavy-line Usulután and hardly differs in any way from the same ware in the Archaic phase at Copán (Longyear, 1952). This ware is also analogous to Usulután vessels in other areas of southeastern Middle America, such as those of Miraflores at Kaminaljuyu. The late Formative placement of this increment in Ulua Bichrome is fairly certain. However, after this Usulután material has been subtracted, all the rest looks very much like both Ocós and Conchas and Chiapa I and II. The thin-walled neckless jars with zoned rocker-stamping are clearly related to Ocós, and the same form with filleting, below which is scoring (Strong, Kidder, Paul, 1938, pl. 9), looks amazingly like certain Chiapa I neckless jars. The related "Archaic" (Yarumela III) phase of Canby has at least one neckless jar with zoned shell-edge rocker-stamping, of very Ocós appearance. A smaller number of Ulua Bichrome sherds look like Conchas I and Chiapa II, including bowls and dishes with beveled and everted rims and apparently also double-line-break incising. The Yarumela sequence unfortunately does not resolve the question. There, the "Eo-Archaic" (Yarumela I) is followed by a "Proto-Archaic" phase which has a good deal of pattern-burnished plain ware (a trait characteristic of Conchas 1, Las Charcas, and the Early Formative in Yucatan), what appears to be material carried over from the "Eo-Archaic," and, toward the end, a few Playa de los Muertos-like sherds with zoned bichrome painting. The "Archaic" (Yarumela III) which follows contains both Ulua Bichrome and Playa de los Muertos types. Because of the sparseness of the samples, particularly for the "Proto-Archaic," it seems to me that the chronological distinction between Ulua Bichrome and Playa de los Muertos has yet to be demonstrated stratigraphically. Comparative material from other areas would suggest the Honduras sequence to run, in order, from "Eo-Archaic" through an Ocós-like Ulua Bichrome, followed by Playa de los Muertos, with a final period comprising the wavy-line Usulután material of Ulua Bichrome and all of the Copán Archaic. The pottery from the Copán caves (Gordon, 1898) is clearly related, as shown by Porter (1953, pp. 63–64), to both Playa de los Muertos and to Tlatilco.

GUATEMALA HIGHLANDS

It is with trepidation that I attempt a correlation between La Victoria and the Formative sequence at Kaminaljuyu, for the researches of the Carnegie Institution in the Guatemala City area have appeared in only a few reports (Shook, 1951, 1957; Shook and

Kidder, 1952). Only the Miraflores phase tombs in Mound E–III–3 have been reported in full, and for the earlier phases like Las Charcas we have only brief outlines. The large and important collections of Kaminaljuyu in the Museo Nacional de Arqueología y Etnología in Guatemala have, however, been of great service for a comparative study.

None of the pottery or other artifacts in the Formative sequence at that site resemble in any way the material of the Ocós phase. Rocker-stamping, cord-marking, shell-stamping and iridescent painting never appear at Kaminaljuyu, and fabric impressing only comes in with the Early Classic Esperanza phase. For this and reasons to follow, it is fairly clear that Ocós is considerably earlier than Las Charcas.

With Conchas, however, there are quite a few traits shared. These resemblances center on the Las Charcas phase. Conchas, Chiapa II, Playa de los Muertos, and Las Charcas share the double-line-break motif incised near or on rims and "naturalistic," Type A figurines. Conchas, Mamom, and Las Charcas share the cuspidor. Conchas 2, Chiapa III and IV, Chicanel, and Las Charcas have in common orange monochrome dishes with labial ridges. Conchas, Chiapa I and II, and Las Charcas share the heavy neckless jar. Many other traits could have been enumerated, and may be consulted in the section on pottery. Las Charcas has even more specific links with Conchas, however: *1*) polished pottery ear spools of identical shape; *2*) resist "clouds" on orange monochrome; and *3*) fine paste white and red-on-white wares which are indistinguishable from sherds of Conchas Fine White-to-buff and Conchas Fine Red-on-cream. The latter, as already suggested, may actually be of Las Charcas origin or very near it. The last two of these highly specific traits do not appear at La Victoria until Conchas 2. Therefore, it seems to me that while Las Charcas may start in a time level equating with Conchas 1 and Mamom, it must develop with Conchas 2 and likewise with early Chicanel.

The phases which are said to succeed Las Charcas at Kaminaljuyu, Arévalo, Majadas, and Providencia, show no very close affinities with any phase at La Victoria. However, certain neckless jars from C–III–10 (*MNAE* Coll.), identified as an Arévalo construction in the museum catalogue, closely resemble Conchas and Chiapa de Corzo vessels of the same shape. It is not clear whether or not these are Las Charcas sherds scraped up when the mound was built. One Majadas effigy vessel is quite similar to a Río Blanco Orange effigy in Conchas 2. Majadas and Providencia both are characterized by labial and other lateral flanges, a trait which suggests a far later placement than that given by Shook (1957, p. 67). Providencia is equated with the closely similar Sacatepéquez phase in the region just to the west of the valley. Sacatepéquez pottery was recently found together with a typical Majadas effigy vessel which is in Sacatepéquez white ware in a cache near the Antigua road (Mata Amado Coll.), implying that perhaps these two phases at least were not temporally distinct.

Miraflores also has lateral flange vessels (in stone), like the phases above-mentioned. Highly typical of the phase are S–Z angle bowls in orange monochrome with wavy-line Usulután decoration and nubbin supports. The latter vessels equate Miraflores with late Formative manifestations elsewhere, such as the Copán Archaic.

Las Charcas, then, would be coeval with perhaps the tail end of Conchas 1 and all of Conchas 2. Arévalo, I cannot place vis-à-vis the La Victoria sequence, but it too may fall within the Conchas span. Majadas may also begin with Conchas 2, but would largely fall on a labial-flange horizon, as would Providencia and Miraflores, and presumably should be placed on a level with Crucero, the latter part of Chicanel, and Chiapa V. The final reports on these phases, when published, may change this, but at the present I am fairly sure about the correlation between Conchas 2 and Las Charcas and between Crucero and Miraflores.

THE MESA CENTRAL

Knowledge of the cultural succession of the Formative stage in the Valley of Mexico and neighboring areas rests on the major excavations at Zacatenco (Vaillant, 1930), Ticoman (Vaillant, 1931), Gualupita (Vaillant and Vaillant, 1934), El Arbolillo (Vaillant, 1935),

and Tlatilco (Porter, 1953; Piña Chan, 1958). In spite of Vaillant's brilliant work in demonstrating relative chronologies by means of figurine typology, the cross-dating of phases in the Valley of Mexico with phases in other Middle American areas has remained uncertain. Part of the problem lies in the unquestionable regionalism of the Valley of Mexico cultures during the Formative, but some of the blame must rest with Vaillant, who often neglected pottery descriptions in favor of the figurines. Styles in figurines being far more restricted in areal distribution than traits of pottery manufacture and decoration, interregional correlations outside the valley were, until recently, uncertain.

Turning first of all to the working out of relationships between La Victoria and certain sites in the valley, a reasonable relative chronology can in fact be established. To begin with, Ocós again bears no resemblance to any archæological cultures yet found in the Valley of Mexico, with the single exception of Tlatilco. The Transitional phase at that site also has neckless jars with zoned rocker-stamping. As mentioned in previous chapters this rocker-stamping is strikingly different from that in Ocós, always being plain with very widely spaced strokes, and confined between already incised lines. The zoning itself should rather be called paneling. All the other fancy decorative techniques of Ocós are absent. There are a few open bowls with tall tripod feet which recall the tall tripods on some Victoria Coarse vessels, but this trait seems to have little chronological significance in Middle America. I had expected to see more Ocós-Tlatilco resemblances when I examined the collections in the Museo Nacional in Mexico City, but these failed to materialize. The feeling remains, nevertheless, that Transitional Tlatilco represents a late radiation of Ocós-like ideas, perhaps from an intermediate site which had retained them.

Between Conchas and Tlatilco, shared traits again seem at a minimum. However, a great significance here is the occurrence, firstly, of a fragment of a rocker-stamped animal effigy in late Ocós or early Conchas deposits that appears to be of the same form as the seated animal from Burial 194, Tlatilco (Porter, 1953, pl, 9, *f*), and secondly, of the pottery ring with two faces of late Conchas 2 date. This ring has a typical Conchas face of the RE type, but below it is another face with typical Type Di eyes and the characteristic Tlatilco-style mask over the lower part. It definitely ties in at least the later part of Conchas 2 with Transitional Tlatilco. Tres Zapotes figurine heads also appear in late Conchas 2 deposits, and masked faces have been found in Early Tres Zapotes, so that this correlation is secure. Furthermore, Conchas and Transitional Tlatilco share similar "sunburst" patterns on the bottoms of grater bowls (which are not tripod at Tlatilco).

Conchas and El Arbolillo 1 must also be related. The black tripod bowls of the early part of the latter phase resemble the composite silhouette form of Conchas grater bowls, and the red-filled incising strikingly recalls on the same vessels the same type of decoration on Ocós Black pottery of the Conchas 1 subphase. By late El Arbolillo I, sunburst-pattern incising like the hub-and-spoke motif on Conchas graters appears on thick, black "graters" of Transitional Tlatilco appearance and black composite silhouette bowls indistinguishable in form from Ocós Black bowls of the Conchas phase.

Early Zacatenco correlates with Conchas through the presence in both phases of white monochrome bowls with eccentric, beveled rims which have been double-grooved or incised and black monochrome bowls of composite silhouette with horizontal fluting above the body break on the exterior. Middle Zacatenco shares with Conchas polished pottery ear spools (which appear in late El Arbolillo I and II), simple silhouette bowls in white monochrome, and tripod grater bowls (but these are in red-on-white bichrome in Zacatenco). Late Zacatenco is obviously a late Formative phase equating with Crucero in the frequency of S–Z angle bowls; moreover, the bulbous tripod feet are also a late characteristic.

To summarize the above arguments, the early subphase of El Arbolillo I would appear to have begun at the same time as Conchas 1. Both El Arbolillo I and II, Early and Middle Zacatenco, and at least Transitional Tlatilco seem to have been contemporaneous with most of Conchas.

For a fuller understanding of the relative positions of these phases in the Valley of

Mexico, we must examine the evidence from the Tlatilco excavations (Piña Chan, 1958) along with the figurine correlations suggested by Vaillant (1935, table 16). In the test excavations, Pit 2 and the Iglesia Pit at Tlatilco, three phases have been clearly defined. The earliest of these is Lower Tlatilco, which differs in no major way from early El Arbolillo I, with the same red-filled incising on black ware plus a white monochrome composite silhouette bowl with rim and base interior incising. (This incision resembles that on Conchas White-to-buff.) Figurine types found in this phase are C 1–2 (also found in middle El Arbolillo I), C 1a, and C 3c (all types known from the late subphase of El Arbolillo I) and C 3a (early El Arbolillo I). Evidence from the figurines suggests a time spread throughout the El Arbolillo I phase, while the sherds imply a correlation with the early subphase only. Transitional Tlatilco and Upper Tlatilco are the phases to which the spectacular burials can be ascribed. In the Transitional phase appear rocker-stamping, excision, zoned or paneled decoration, white-rimmed black ware, Olmec influences, and Type Di and Dii figurines. What is generally not realized is that white-on-red vessels of typical Early Zacatenco form and decoration (Vaillant, 1930, pl. 5) also appear in this phase. These are found in burials as well as in debris. Porter has made out a strong case for an equation of Tlatilco with Middle Zacatenco (1953, pp. 20–33), but this can only be valid for the later part of the Tlatilco sequence, possibly only Upper Tlatilco. In figurine types, the Transitional phase has Di, which is characteristic of Early Zacatenco and late El Arbolillo I, and Dii, not appearing at Zacatenco until the Middle phase. Late El Arbolillo I and Transitional Tlatilco are also closely linked by the bottle shape and by thick, black grater bowls (not tripod) with "sunburst" patterns. Upper Tlatilco adds some new pottery types and the following figurine types: Types A and B (both characteristic of Middle Zacatenco and El Arbolillo II), C 5 (El Arbolillo II), and C 9 (known from Gualupita II). Gualupita II is very late Formative, and the occurrence of a C 9 figurine in Upper Tlatilco would perhaps take the phase a little later than Middle Zacatenco or El Arbolillo II.

Lower Tlatilco, then, correlates with early El Arbolillo I and Conchas 1, and perhaps slightly overlaps with the beginning of Early Zacatenco. Transitional Tlatilco correlates with late El Arbolillo I, Early Zacatenco and possibly part of Middle Zacatenco, and Conchas 2. Upper Tlatilco, most of Middle Zacatenco and the beginning of Late Zacatenco, El Arbolillo II, and possibly the terminus of Conchas 2 would be on the same time level.

In other words, the placement of the beginning of Formative culture in the Valley of Mexico as it is now known to us is impossibly early on many charts (cf. Sorenson, 1955; Coe, 1957b, figure 1). El Arbolillo I and Early Zacatenco have been demonstrated by recent excavations, including those at Tlatilco and La Victoria, to occupy a middle position in the relative chronology of the Formative stage in Middle America. Moreover, the famous burial furniture of Tlatilco which Porter has tied in with important New World currents of diffusion has been shown to be almost, but not quite, at the beginning of the Valley of Mexico sequence. The phases in which it is found, Transitional and Upper Tlatilco, are definitely later than the analogous diffusion traits at La Victoria. At the latter site, they appear in the Ocós phase, which is earlier than anything of Formative affiliation yet found on the Mesa Central.

TOWARD AN ABSOLUTE CHRONOLOGY

The radiocarbon dates that have been published since the inception of the technique in 1950 have been confusing and internally inconsistent for the Formative in Middle America. Some of the trouble may have arisen in the solid carbon technique that was then in use, but much is certainly due to faulty sampling techniques and contamination in the field or in the museum. What is the sample actually dating?—is a question sometimes not answered or answerable. For instance, charcoal picked out of mound fill could date the actual period of mound construction or could be from a fire made a thousand years earlier. It could also be

intrusive. If found in a pit, the same problems arise. How did the charcoal get into the pit? Was it from a fire lit inside to cook food? Was it the result of the filling of the pit with village debris which could conceivably be much older than the pit itself? Was the pit used over a long period of time? The human factor in the radiocarbon "error" is perhaps the most important, and may explain the discrepancy between some dates on samples collected early in the game and those from more sophisticated sampling since some of the dangers have been explained. It is because of this that many published dates must be handled cautiously.

Since La Victoria is so closely tied to Chiapa de Corzo, that site will be dealt with first. A number of radiocarbon dates (kindly provided by Gareth W. Lowe) are now available for the Chiapa sequence, from determinations made at the Groningen Laboratory, Holland, and the Lamont Laboratory, New York. Chiapa I has a single date of 1292 B.C. ± 100 (GRO–774), believed to date the middle of the phase. For Chiapa II, there are three dates of 927 B.C. ± 60 (GRO–1172), 812 B.C. ± 60 (GRO–1512), and 812 B.C. ± 60 (Lam–427). Chiapa IV had two dates, 312 B.C. ± 45 (GRO–1524) and 172 B.C. ± 60 (GRO–1056). Chiapa V is dated to A.D. 28 ± 50 (GRO–1525) and Chiapa VI to A.D. 278 ± 45 (GRO–1589). These dates are internally consistent and check with recent determinations from comparative material in other areas.

In the recent excavations of MacNeish and Peterson in the Santa Marta rock shelter, Chiapas, the earliest culture with ceramics (occupation 6) shows very close resemblance to both Chiapa I and Ocós. A single radiocarbon date on a charcoal sample is 1320 B.C. ± 200 (M–978). This material directly overlies a long preceramic occupation at the site (personal information from R. S. MacNeish).

This, if applied to La Victoria, would mean that Ocós probably begins by 1500 B.C. and ends at about 1000 B.C. or a little earlier; Conchas 1 would end at approximately 700 B.C. and Conchas 2 would continue to anywhere between 300 and 150 B.C. Crucero, correlating with Chiapa V, could center around the time of Christ, perhaps ending about A.D. 100.

This chronology checks with the dates recently published for La Venta (Drucker, Heizer, and Squier, 1959, pp. 264–67), a single long phase which, as shown above, is closely affiliated with all of Conchas. Five dates for Phase I (a construction phase) cover a span from 1454 to 304 B.C., with an average of 814 B.C. ± 134. This is remarkably close to the dates for Chiapa II, which I correlate with Conchas 1. Phase II at La Venta has a date of 804 B.C. ± 300. Samples from above Phase IV are believed to be post-Olmec and average 309 B.C. Therefore, La Venta as a phase probably lasts from at least 850 B.C. or earlier to around 350 B.C. or later, a period of time which confirms the guess dates for the related Conchas phase.

In the Guatemala highlands, two entirely different and conflicting series of dates for the Kaminaljuyu sequence have appeared (both provided by E. M. Shook). The earlier series dated Las Charcas at 1546 B.C. ± 800 while the later Yale dates place it within one sigma at 382 B.C. ± 50 (Y–384). The later placement would more closely check with the available data on relative and absolute chronology in other areas. The earlier would be absolutely impossible, unless one assumed that the true date lay at the very upper end of the one sigma range, that is, at 746 B.C., but even that would appear too ancient. These dates are on charcoal from pits. How the charcoal got into them may provide an answer to the confusion. Miraflores, equating with Crucero and Chiapa V, was dated in the old series to 1188 B.C. ± 240 and 536 B.C. ± 300, in the new series to 67 B.C. ± 60 (Y–391), A.D. 18 ± 60 (Y–377) and A.D. 38 ± 60 (Y–382). Again the later dates are more reasonable than the earlier, and check with the A.D. 28 date for the coeval Chiapa V. Other Yale dates on phases which should fall between Las Charcas and Miraflores jump all over the place. Some of this may be due to sampling or laboratory error, or to the possibility that some Kaminaljuyu phases are not in temporal sequence, but represent intrusive material from outside areas so that in some cases two phases would actually be contemporary.

The first series of dates on sites in the Valley of Mexico (Johnson, 1951) are also inconsistent with later dates. In particular, the first dates on Tlatilco and Zacatenco have an im-

possible antiquity presumably due to sampling error, that is, the submittal of carbon which actually dates older phases. Recent determinations on charcoal from the Tlatilco cemetery are not quite so out of line with the chronology advocated here (Crane and Griffin, 1958). Sample M–660 was charcoal surrounding a burial; the date is 567 B.C. ± 250. Charcoal from inside offering No. 4 of Burial 193 (M–661) is 982 B.C. ± 250. Since both of these samples presumably date Transitional Tlatilco, the second date seems to me a little old, but not totally impossible. Sample M–660 would closely fit a correlation with Conchas 2 and Chiapa IV (also III?).

Absolute dating for the La Victoria sequence itself has been considerably hampered by the unfortunate absence of adequate charcoal samples for radiocarbon dating. Two samples of shell from strata which are almost certainly of Conchas 1 date have been run by the United States Geological Survey. The resulting dates are 191 B.C. ± 240 (USGS W–837) and 121 B.C. ± 240 (USGS W–836). If the sequential correlations suggested here are anywhere near reality, and I feel that in the case of Chiapa de Corzo they must be so, then these dates are at least 500 years too recent. The explanation may lie in the general unreliability of shell samples, with possible intrusion from overlying shell strata. Results remarkably close to the time estimates which I have proposed have been determined from measurements of thin sections cut from all obsidian chips and artifacts found in E–3 of Mound III (Evans and Meggers, 1960). The only discrepancy is that Ocós is shown to start somewhat earlier than I would previously have estimated (2340 B.C. sample 45–13f). The agreement of the obsidian dates with my "guess" dates is quite notable since the latter are ultimately dependent upon an independent system of assessment, radiocarbon dating from charcoal specimens.

SUMMARY

The mass of detail presented in the above chapter can be summarized by saying that the Ocós and Chiapa I phases are among the earliest cultures yet discovered in Middle America, being preceded in the area perhaps only by Pavon, the "Eo-Archaic" at Yarumela, and possibly Yojoa Monochrome. Although Ocós may go back as far as 1500 B.C. there is as yet no proof for such a date. The radiocarbon dates for Chiapa de Corzo suggest that Chiapa I and Ocós end around 1000 B.C.

The phases which temporally follow in most regions within Middle America include those placed as "Village Formative" along with one of the more advanced civilizations of the New World, La Venta. These phases span the time around 1000 B.C. through approximately 300 B.C. On the earliest level within this span are widely scattered phases, usually in the lowlands or accessible to them, sharing such features as flat-based dishes with outflaring sides, composite silhouette bowls, "naturalistic" figurines, and double-line-break motif in grooving and incising. Several important lowland and highland areas are tied in by the grater or scored-bottom bowl which is often tripod. In the later part of the same span, many phases throughout the lowlands from the Petén around to the Pacific coast can be correlated by the orange monochrome dish with wide everted and grooved rim.

Later than all of these are cultures in which pottery with labial and other lateral flanges is characteristic, as is the S–Z angle shape. In many sites at this time, especially those in the eastern and southeastern portions of Middle America, bowls with wavy-line Usulután decoration and nubbin feet are markers.

Finally, a well-marked period brings to a close the Formative stage, and is typified by ceramics which emphasize jars with tall, flaring necks and bridged spouts, pot rests, mammiform feet, and the beginning of the basal flange. Phases of this period, such as Chiapa VI, with a radiocarbon date of A.D. 278 ± 45 (GRO–1589), and Aurora at Kaminaljuyu, spanning a time from A.D. 98 to A.D. 398 ± 60 (Y–396, 629), show that it lasted right up until the inception of the Classic.

It is certainly not desirable that every new report on the Formative should introduce a new terminology, yet one is called for. Wauchope's Village Formative and Temple Formative terms are not only premature, but may well

be inaccurate. Sorenson (1955, pp. 60–62) proposes a "non-loaded" nomenclature which will order the Formative in terms of a number system, but while having some good points, this implies a degree of accuracy in the data which is just not there. Piña Chan (1956 and 1958) has applied the more cautious terms Lower, Middle, and Upper to Wauchope's developmental descriptions. The one advanced here will merely be a reworking of some of the above suggestions for purposes of organizing the material already discussed. They may be considered as substages or as periods, for they have both developmental and chronological meaning.

Proto-Formative would include the three very early phases of Pavon, Yojoa Monochrome (with uncertainty), and "Eo-Archaic." These are set off from other phases in Middle America by their very early chronological position (although we are not sure about Yojoa Monochrome), by their relative simplicity, although this criterion is dangerous, and by the fact that although early, they do not share in the inter-areal diffusion that has been and can be demonstrated to have linked Woodland, Middle American, and South American cultures on a very ancient horizon. The Proto-Formative cultures of Middle America would be the counterpart of Monagrillo, Valdivia, and Early Guañape to the south; like them, they probably represent a basically native regional development of the pottery art. If the analogy is correct, then the probability of *intensive* corn agriculture in Middle America at this time is very low; perhaps it was incipient, but not developed.

Early Formative includes Ocós, Chiapa I, and perhaps part of Ulua Bichrome. Thin-walled neckless jars are a hallmark and are usually zoned, with many unusual decorative techniques, such as rocker-stamping, cord-marking, pinching, and so forth indicating affinities between Woodland cultures of the north and the Ocós phase. Iridescent painting may yet prove to be a widespread horizon technique on the Early Formative time level. Chronologically, it appears to be between 1500 B.C. and 1000 B.C. Mound building of a limited sort is indicated.

Middle Formative includes all of Conchas; Mamom and part of Chicanel; Ponce, Aguilar, and most of Chila; Chiapa II through IV; Las Charcas; El Arbolillo I and II; Early and most of Middle Zacatenco; Lower, Transitional, and most of Upper Tlatilco; La Venta, and part of Tres Zapotes; Playa de los Muertos; and many other related cultures or phases. Inter-areal diffusion with areas outside Middle America, and the similarities between phases of the period and South American cultures may be due largely to inheritance of Early Formative culture patterns. At this time the "form" (to use Frankfort's term) of Middle American aboriginal culture was laid down. The various archæological manifestations found within the borders of this culture area cannot be mistaken for those of any other in the New or Old World. Many areas are tied together by the double-line-break motif, dishes with flat bases and outflaring sides, orange monochrome dishes with everted rims, "naturalistic figurines," and many other traits previously listed. Intense and complex ceremonialism is also present, particularly in the advanced La Venta civilization, the first in Middle America, with planned groups of temple mounds.

Late Formative comprises Crucero; Chiapa V; later Chicanel; possibly late Chila and most of Pánuco II; the later part of Early Tres Zapotes; the Usulután portion of Ulua Bichrome; and Miraflores. An even greater regionalism is now characteristic of Middle America. Advanced civilization has moved to the Pacific slope and highlands of Guatemala, where calendrical ceremonialism is found (Coe, 1957a). At sites like Kaminaljuyu really enormous temple mound groups were being built. The period or substage is defined by the following ceramic traits: the S–Z angle bowl; bowls with labial and other lateral flanges; nubbin feet which are usually tetrapod; the initiation of swollen supports; widespread use of wavy Usulután decoration; stuccoed surfaces; and absence of rocker-stamping.

Proto-Classic is a term adopted from Wauchope (1950) and having the same application as there. That is, it includes Holmul I; Matzanel; Aurora; Chiapa VI and VII; Monte Alban II (Monte Alban I may be spread through both Middle and Late Formative); Teotihuacán II; Late Ticoman; and many other phases characterized by rich mortuary pottery, mammiform supports, bridge spouts,

elaborate polychrome and/or stuccoed decoration, complex effigies, and the construction in many regions of stone-faced temple substructures. At this time, Petén civilization is inaugurated, possibly after stimulation from the highlands.

Chapter XII

LA VICTORIA AND NEW WORLD PREHISTORY

BEYOND the diffusional currents, outlined in the preceding chapter, which link La Victoria with other Middle American sites of the Formative period, there are broader relationships with other New World areas. These have already been presented in detail in another paper (Coe, 1960) and will only be summarized here.

Probably the most important result of the excavations at La Victoria was the discovery of a number of detailed resemblances between the pottery and artifacts of that site and those excavated by Estrada, Evans, and Meggers in Formative sites of coastal Ecuador (Evans and Meggers, 1957; Estrada, 1958). The coastal Formative sequence in Ecuador runs, from early to late, Valdivia (with which no resemblances were noted), Chorrera, and Tejar. Ocós and Chorrera share the trait of iridescent painting in striped patterns on the interiors of buff dishes or bowls, a peculiar technique of decoration with probably a single point of origin; plain rocker-stamping; pinching; and a few others of less complexity. Conchas shares with Chorrera almost identical "cuspidors"; burnished, black, composite silhouette bowls with horizontal fluting on the upper zone; polished pottery "napkin ring" ear spools of identical form, finish, and color; white-to-buff bowls with eccentric, beveled rims; broad-line burnishing on matte surfaces; pottery with grooved, everted rims; and obsidian blades. Conchas shares with Tejar deeply scored grater bowls; negative painting on white-to-buff vessels; and red-and-white pottery. In terms of the sequence at La Victoria, Chorrera would begin in late Ocós and continue through Conchas 1, while Tejar would begin in Conchas 2 and perhaps terminate sometime after the end of Conchas. Because of the extraordinary resemblance between highly specific items in the inventories of the two areas, and in the light of the almost total absence of these traits in the Intermediate Area (that is, eastern Honduras to northern Ecuador), a clear case is at hand for contact through direct sea trade.

There are fewer links with other regions of the west coast of South America. The most significant of these is probably the close similarity of some Ancon-Supe zoned sherds of the Chavín period in coastal Peru with some Ocós sherds. However, these resemblances do not make the convincing case for actual contact that we have seen for Ecuador.

Considerably more diffuse but in many respects just as intriguing is the evidence for ancient connections with eastern North America, north of the Rio Grande. This evidence centers on certain complex decorative techniques of the Ocós phase, including zoned rocker-stamping, cord-marking, fabric-marking, zoned burnishing, and pinching. While rocker-stamping has an extraordinarily extensive distribution (Willey, 1955a), cord-marking does not. While cord-marking characterizes the most ancient ceramics known in North America, those of the Woodland period, it is virtually absent to the south of the Rio Grande. There is now little doubt that Woodland pottery was introduced into the New World across the Bering Straits from Asia, perhaps as early as 2500 B.C. The outstanding feature of this pottery is that it was decorated by impressions from a cord-wrapped paddle. Because of the lack of cord-marked pottery on an early time level in Middle America, it has long been felt that, while the beginnings of the ceramic art have not yet been found there, this art was *sui generis* and not introduced from the north. Now, with cord-marking showing up on the demonstrably early Ocós pottery, the latter theory will have to be reexamined. I think it most likely that in the future an archæological phase will be discovered in Middle America which will exhibit even more specifically a direct derivation from an earlier Woodland complex to the north.

If this hypothesis proves to be true, will it

be necessary to assume that all New World ceramics have a single origin, namely, in Asia itself? On the contrary, some Proto-Formative phases of South America and the Intermediate Area, all with technologically simple pottery which has been experimentally but by no means crudely decorated, have radiocarbon dates that are almost as old as the oldest ones available for pottery-making cultures in North America. Among these are Valdivia in Ecuador (2493 B.C. ± 200, 2233 B.C. ± 200, 2093 B.C. ± 200) and the Monagrillo phase of Panama (2100 B.C.), both of which certainly antedate the Ocós phase. It might be predicted that New World pottery will eventually be shown to have had multiple centers of origin: *1*) a Woodland complex of northern North America, characterized by cord-marking and rocker-stamping, introduced directly from Neolithic Asia, and *2*) several Proto-Formative complexes, each independent of the above and of each other, arising in the southeastern United States (fiber-tempered pottery), Middle America, the Intermediate Area, and lowland South America. Diffusion of and contact between these Proto-Formative complexes may have taken place before 2000 B.C. The interaction, some time after 2000 B.C., between a Woodland complex introduced from the north and native Proto-Formative complexes of Middle America would have resulted in the characteristic facies of the earliest Formative ceramics of that area. With the ascendancy of developed village and town life, and even civilization, in the Formative cultures of Middle America, tides of diffusion, bearing with them feline cults and rocker-stamping alike, flowed south along the Pacific coast of Nuclear America to stimulate a similar development in western South America.

APPENDICES A–D

APPENDIX A

RELACION DE LA PROVINCIA DE SOCONUSCO

By

Luis Ponce de León

Governor of Soconusco (translated from Ponce de León, 1882)

Dated 1574

THE PROVINCE of Soconusco has a mountain range which extends many leagues from east to west; this range is bounded on the north by the province of *Chiapa*, on the south by the sea, on the east by the border of the *Suchitepeques* and by the province of *Guatemala*, and on the west by *Teguantepeque*, a territory of New Spain. The said province is sixty leagues in length, with a width of seven or eight leagues from the mountains to the sea on the south, although in some places less. More than sixty rivers descend from the mountains to the sea, which form a very large estuary or lagoon between the sea and the land, by which those of this province are accustomed to treat, in their canoes, with those of Teguantepeque, although for many years this could not be done, nor even navigated, on account of the many alligators which are in the said estuary, which ate the Indians who went in their canoes.

All of this province is very flat, with many marshes and dense forests on account of which one cannot travel in the rainy season; the southern part is hot in the extreme and humid in the same degree. It rains there eight months out of the year, from March until October; there is a great amount of lightning, which kills many people and sets fire to houses, which in the entire province are of thatch; and in this last year, '73, in less than four months the lightning twice burned the principal church of this province, which is in the town in which lives the governor, and likewise has burned three other churches in this province at the same time.

The soil of this province is extremely fertile for the cacao plantations of the Indians, and for maize. Wheat will not grow, nor the vine nor many other things of Castile.

The said province has forty small settlements, most of them with ten households or less; they are along the road so that there may be lodged the Spaniards who trade there, and who make much profit because they bring all the things necessary to eat and clothe oneself; without which one cannot live in the province, because nothing of Castile is grown in that land.

In the entire province there are no more than 1800 Indians: they are well indoctrinated, and do not have the ancient errors that exist in other parts.

In only one place, called Huehuetlan, where is present the governor, are there twenty Spanish households; the remaining of the said place are Indian.

In the town of Soconusco there are six Spanish households, and the rest are Indian.

All of the Indians of the province pay tribute, conforming to the (edicts) made by the *Real Audiencia de Guatemala*, with the exception of some very old persons, or widows who do not have to pay tribute.

There are no *encomiendas*, nor *encomenderos* in the entire province.

There are many unappropriated lands in the province, which for the lack of people are not populated, and would be of the greatest profit if they were settled.

In the past six years there have been established four cattle ranches, which will be of much profit for the province: other livestock have not been introduced because of the height

of the vegetation which chokes and kills them.

In all this province there is no seaport, because the land is very flat and entirely lined with shoals: the fisheries are of shrimp but other marine fish are not taken, nor are pearls, nor coral, nor seed pearls.

In all this province there is no river which can be navigated in any part, nor can one navigate anywhere except in the estuary abovementioned.

In all this province there are no mines of gold, silver, iron, quicksilver, lead, copper, tin, brass, salt, or alum; nor have there been discovered any to this date.

The tribute payments of Your Majesty are 600 *cargas* of cacao; 200 of which are divided among the Indian communities by order of the Real Audiencia of Guatemala, for the service of the churches, in ornaments, wine and candles, and to feed the curates and vicars who administer the sacraments to the natives and to the Spaniards. The other 400 *cargas* are gathered into four chief places of these peoples, and in Guatemala the royal officials sell them at auction and collect the money realized by them.

More than 130,000 pesos enter and leave this province each year, because in each year are harvested in the said province more than 4,000 *cargas* of cacao. There pass likewise through the said province more than a thousand *cargas* of cacao from the *Suchitepeques*, who carry it for sale in New Spain. In this way there leave and pass through this province 5,000 *cargas* of cacao which are worth more than 100,000 pesos, because each one is ordinarily worth 20 or 22 pesos. There enter, likewise, each year into the province more than 30,000 pesos of merchandise, as much with the Indians as with the Spaniards, in clothing of Spain and of the land, and candles and many other things; and all told there are more than 130,000 pesos, nothing being paid to Your Majesty. The port of entry for the province is a place called *Mapastepeque*, one cannot pass for another part unless it be through there.

There is not in all the province any soldiery, nor any fortress.

In the said province, as mentioned before, there are many vacant lands; and if Your Majesty would put in it 4,000 more Indians than those which are already there, the Royal tribute will increase to 1,000 *cargas* of cacao, which are worth 20,000 pesos, while today the tribute is not worth more to Your Majesty than 400 *cargas* of cacao, which is worth 8,800 pesos.

Here one Indian pays in tribute to Your Majesty more or less what ten do in New Spain, and there are many who pay more than a hundred; and for this it would be of the greatest profit to have transferred the said 4,000 Indians; thus it would concern the Royal Treasury, because this land would be very rich and would pay the royal tribute with great ease. The said 4,000 Indians could be taken from New Spain, and from Guatemala and its province.

There are no other royal officials in the entire province than the governor and the chief constable and the scribe and two constables; the offices of chief and deputy constables and scribe being filled with difficulty, because they have no salary nor any profit.

Your Majesty pays no other salaries in all this province excepting to the governor 600 gold pesos and 300,000 mrs. to six curates and vicars who administer the Holy Sacraments to the Indians and Spaniards there. 50,000 mrs. is given to each curate.

There is not in all the province any lawsuit or legal proceeding which would interest Your Majesty. The governor collects the fines and sends them to the royal officials of *Guatemala*. All are of small quantity.

In all this province there are no ecclesiastical revenues, nor any other thing about which I could notify Your Majesty.

Don Luis Ponce de León

APPENDIX B

FAUNAL REMAINS AT LA VICTORIA

MAMMALS

IN ALMOST all levels of the excavations at the site mammal bones were found, usually extremely fragmentary and burned, along with the broken plastrons of turtles and tiny pieces of human bone. The identification of the mammalian specimens was undertaken by Dr. Karl Koopman.

Of the many fragments collected, only 22 were identifiable to species, and, as stressed by Dr. Koopman, even about these there may be some doubt in certain cases. These species are as follows:

Dasypus novemcinctus (nine-banded armadillo)
Orthogeomys grandis (pocket gopher)
Sigmodon hispidus (cotton rat)
Canis familiaris (domestic dog)
Tayassu ?pecari (?white-lipped peccary; the single tooth agrees with this species better than with the collared peccary, *T. tajacu*)
Odocoileus virginianus (white-tailed deer)

The distribution of these mammals by level is given in table 16. As can be seen, in Ocós levels are found the domestic dog, peccary, pocket gopher, and rat. The last two of these are notorious burrowers and may or may not have actually been eaten. In fact, the gopher or *tusa* is found throughout the history of the site, being evident both from the bones and from the holes burrowed. In the Conchas phase, besides the pocket gopher are remains of domestic dog, armadillo, and deer. Near the top of Mound III in a level containing mixed Crucero and Marcos sherds was encountered one identifiable bone of a pocket gopher.

The very small number of identifiable remains is understandable considering their condition, and it should be emphasized that those identified with confidence almost certainly do not represent a fair sample of the total range of mammals drawn upon for food. The list presented in chapter II probably would conform more closely to the mammal species included in the diet of the ancients. Nevertheless, we can be certain that at least the above animals were utilized.

The presence of the domestic dog in the Ocós phase may mark one of its earlier occurrences in Middle America, but not the earliest. *Canis* is definitely known for the La Perra phase in Tamaulipas, with a radiocarbon date of circa 2500 B.C. (MacNeish, 1958, table 31). Curiously enough, the dog is absent from the faunal lists given for the Monagrillo phase (circa 2100 B.C.) in Panama (Willey and McGimsey, 1954, table 11).

MOLLUSKS

The shells of mollusks were abundant throughout the site and in some cases constituted thick layers of considerable area. The species which were most common, including *Amphichæna kindermanni* Philippi and *Polymesoda radiata*, are generally found today in brackish water situations, testifying to the extensive estuary system which must have once characterized the region in which the site is situated (*see* chapter X). Others, such as *Agaronia testacea*, are fully marine species and must have been gathered off the coastal bar.

The difference in size between the ancient and modern valves of *Amphichæna* is striking. Those found deposited in the site were far larger both in length and in height than valves washed up on the beach today. A "t" test for significance on the mean measurements of a random sample of 35 ancient *Amphichæna* valves and 15 modern valves of the same species produced the following results:

	Ancient	*Modern*	
Mean length	2.69	2.06	Length: $t = 13.7$
Mean height	.96	.79	Height: $t = 10.2$

TABLE 16. Breakdown of La Victoria Mammals by Levels.

	Dasypus	*Orthogeomys*	*Sigmodon*	*Canis*	*Tayassu*	*Odocoileus*
Pit 2, Level 6				1		
E–3, Level 8				1		
Level 19				1		
E–4, Level 9		1				
Level 15		1			1	
Level 16			1			
E–5, Level 5				1		
Level 7	1					
E–6, Level 8		1				
Level 9				1		1
Level 14		1				
F–5, Level 3		1				
Level 8		1				
Level 12				1		1
Level 14		1				
G–5, Level 4				2		1
Level 6						1
TOTAL	1	7	1	8	1	4

The two populations are therefore distinctly different in size. Dr. William J. Clench informs me that this species can exist in both brackish and salt water, but does best in the former. He suggests that the reduction in valve size is correlated with a change from brackish to open-water conditions. This would check with the information on geological changes provided by aerial photographs.

A glance at tables 17 and 18 will show that the Ocós phase peoples had rather different tastes in mollusks than those of the Conchas phase. Larger species such as *Ostrea columbiensis*, *Strombus galeatus*, and *Mytella falcata* were gathered, and it is a good possibility that these were reduced in numbers by the ancient Indians during that phase. During the Conchas phase, a heavy emphasis was placed on small pelecypods like *Amphichæna*, *Polymesoda*, and *Iphigenia altior*. The really great concentrations of *Amphichæna* were spread out in shell layers during the Conchas 1 subphase.

Next to the species name in table 17 has been placed a short characterization of the situation in which the species is usually found. The abbreviations following refer to the authority from which the information was obtained and are:

WJC—Dr. William J. Clench, Harvard University (personal information)

AMK—Keen, 1958

Keen's book has become the standard reference work on the mollusks of tropical west America, and was of infinite value to me in making the identifications. Dr. Clench very kindly helped me out with a few subspecies which differed strongly from those given by Keen.

TABLE 17. Incidence of Molluskan Remains.

		Ocós	*Conchas 1*	*Conchas 2*	*Crucero, Marcos*
PELECYPODS					
Amphichæna kindermanni Philippi	Brackish water. (*WJC*)	X	X	X	–
Anadara aequatorialis	Offshore, 6–40 fathoms. (*AMK*)	–	X	–	–
Anadara grandis	Sand bars may be taken at extreme low tide. Abundant. (*AMK*)	X	–	X	–
Anadara obesa	In fine sand or mud, 12–61 fathoms. Uncommon. (*AMK*)	–	X	–	–
Anadara perlabiata	Sand bars at extreme low tide. Shallow water to 45 fathoms. Not uncommon. (*AMK*)	X	X	X	–
Anomalocardia subrugosa	On mud flats in shallow water. Not uncommon. (*AMK*)	X	X	X	–
Cardita laticostata Sowerby	Near extreme low-tide line in sand under rocks, or offshore to 15 fathoms. (*AMK*)	–	X	X	–
Chione gnidia	In bays and offshore to depths of 18 fathoms. Fairly common. (*AMK*)	X	–	–	–
Chione pulicaria	On sand bars and offshore to depths of 10 fathoms. Not uncommon. (*AMK*)	–	X	–	–
Iphigenia altior	Intertidally and to 13 fathoms (*AMK*). Brackish water. (*WJC*)	X	X	X	–
Lunarca brevifrons	In depths of less than one fathom to 24 fathoms. (*AMK*)	–	X	–	–
Mulinia pallida	Intertidally and to depths of 13 fathoms. Not uncommon. (*AMK*)	X	–	–	–
Mytella falcata	Intertidally on mud flats and in shallow lagoons to 6 fathoms. Not common. (*AMK*)	X	X	–	–
Ostrea columbiensis	Common in mangrove swamps. (*AMK*)	X	X	X	–
Polymesoda radiata	Brackish to fresh water. Not common. (*AMK*)	X	X	X	–
Protothaca asperrima	On mud flats. Not uncommon. (*AMK*)	X	–	–	–
Trachycardium senticosum	On shallow, muddy bottoms. (*AMK*)	–	X	–	–
GASTROPODS					
Agaronia testacea	Burrow in sandy beaches. (*AMK*)	X	X	X	–
Cerithidea valida	On mud flats in brackish-water bays. (*AMK*)	–	X	–	–
Natica chemnitzii Pfeiffer	Intertidally on mud flats. Common. (*AMK*)	–	X	–	–
Polinices bifasciata	Mud flats between tides. Not uncommon. (*AMK*)	–	X	–	–
Strombus galeatus Swainson	Just below low-tide line. Fairly common. (*AMK*)	X	X	X	–
Thais kiosquiformis	Common in mangrove swamps, feeding on attached oysters. (*AMK*)	–	X	–	–

TABLE 18. Percentage composition of shell layers, by weight.

	E-3, Level 12	*E-3, Level 13*	*E-3, Level 14*	*E-3, Level 15*	*Pit 1, Level 4*
Amphichæna kindermanni Philippi	99.5	.2			93.8
Anadara sp.				6.8	
Anadara (Cunearca) perlabiata			1.3		
Anomalocardia subrugosa			1.7	3.1	
Chione (Chionopsis) gnidia				4.6	
Iphigenia altior			5.3		
Lunarca brevifrons	.1				
Mulinia palida				4.5	
Mytella falcata		74.6	30.8	81.0	
Ostrea columbiensis		22.1	39.8		
Polymesoda (Neocyrena) radiata			1.7		1.0
Protothaca (Leukoma) asperrima		.9			
Agaronia testacea	.4	2.2	1.3		4.3
Polinices bifasciata					.9
Strombus galeatus			18.1		
TOTAL	100.0	100.0	100.0	100.0	100.0

APPENDIX C

SKELETAL MATERIAL FROM LA VICTORIA

WITH few exceptions, the burials discovered at La Victoria were in a sorry state of preservation. Only Burial 3, found below the shell layers in Pit 1, was in good condition, having been consolidated by being impregnated with calcareous salts. In general, all burials appear to have been extended, although one very poorly preserved group of skeletal fragments in Mound III may have been the result of bundle interment. There is no evidence of any kind of cranial deformation or dental mutilation at La Victoria. Shovel-shaped incisors are also not present.

Burials 1 and 2 (Pit 1, Conchas 2 subphase)

These two burials were not fully excavated, but were extended. The head of Burial 1 was to the east, and the head of Burial 2 was to the northwest. Both individuals were adults.

Burial 3 (Pit 1, Ocós phase or Conchas 1 subphase; figs. 4; 46)

This extended, prone burial has been described in chapter V. The bones were covered with a rough layer of calcium carbonate salts, leached out of the overlying shell layers, sometimes even forming coral-like growths extending from the bone.

The sex is most likely female. The mastoid process is small, as is the skull itself. The brow ridges are undeveloped, and the upper part of the orbits have a sharp edge. In general, the teeth are small. There is a relatively weak linea aspera on each femur, and the pelvis is typically female.

An age of between 20 and 30 has been determined by Dr. Mata Amado on the basis of the teeth. All three molars on either side of the mandible are fully developed. The upper right third molar is peg-shaped, and the upper left is impacted.

The teeth themselves show relatively light wear on the crowns. This is especially noticeable on the buccal cusps of PM 2 and M 1 on both sides of the mandible, and on the lingual cusps of PM 1 and 2 and M 1 of the maxillary teeth.

An unusual feature of Burial 3 is the evidence of violence done to the individual which can probably be considered the cause of death. Four holes were knocked into the skull when the bone was still fresh. The largest is in the lambdoid region and somewhat triangular in shape; it could have been inflicted by an instrument with an edge 3.5 centimeters long and 2.0 centimeters at the widest point. A pointed rock would seem the most likely weapon. Three others were made with a pointed instrument .6–.7 centimeter in diameter, one in the left temporal, one in the back of the left parietal, and the third at the midpoint of the left parietal 3.5 centimeters from the sagittal suture. In all cases the bone on the interior of the skull was pushed in around the holes, but did not fall into the skull; sometimes the bone was only bent in near the hole. The mandible shows the effect of tremendous blows in the left frontal area, bashing in the teeth on that side and telescoping the whole dental arcade and adjacent alveolar region back into the mouth. Here the bone is bent back and cracked but not completely broken, showing that such violence took place either just before or just after death. Since the individual was merely tossed face down into the grave, we would not be very far off in considering this an execution.

Burial 4 (E–3, possibly Crucero or Marcos)

The bones of this burial are so fragmentary that not much can be said. It consists of cranial fragments, four molar teeth, some ribs, a tibia, a right 3rd metacarpal, and a radius. From the tooth wear and the size of the metacarpal it can be tentatively identified as an adult of middle age or older.

Burial 5 (E–6, Conchas 2 subphase)

There are even fewer and more fragmentary bones than in Burial 4. The only ones recovered were some cranial fragments (lacking teeth or mandible), a metacarpal, and a femoral condyle. From the size of the bones and the largeness of a single mastoid process, the individual was probably an adult male. In actuality, this may not be a burial but the remains of a cannibal dinner.

Burial 6 (F–5, Conchas 2 subphase)

It is stretching the point a bit too far to call this a burial for it consists only of a mandible. The teeth are severely worn, usually right down to the pulp cavities, with no crowns evident. The first right molar has been lost, with absorption of the alveolar borders. The second right molar has immense caries and is in fact nothing but a shell. The individual was possibly a male and definitely advanced in years.

APPENDIX D

ARCHÆOLOGICAL SITES OF THE PACIFIC COAST OF WESTERN GUATEMALA AND EASTERN CHIAPAS

IN THE body of this report have been made many suggestions about correlations between specific material from La Victoria and from certain other sites, largely unpublished, in the general area of southwestern Guatemala and southeastern Chiapas. In this appendix will be described a number of sites from the point of view of the La Victoria sequence and their probable position within the Formative prehistory of this part of Middle America.

The most extensive survey of the area was made in the field season of 1946–47 by E. M. Shook for the Carnegie Institution of Washington (Shook, 1947). The materials collected and excavated from the survey have been deposited in the Museo Nacional de Arqueología y Etnología in Guatemala, where I had a chance to examine them. A further survey of importance was made by Roman Piña Chan in 1958 on the Chiapas side of the frontier. These collections were examined in the Instituto Nacional de Antropología e Historia in Mexico City. I was able to do a limited amount of reconnaissance and collecting of surface sherds during the 1958 season. This was supplemented by a short exploration of the La Zarca-Ocós area by G. R. Willey and A. L. Smith undertaken during their visit to our site.

Villa Angela (Coll. by Willey and Smith, 1958)

The collection was made from the surface of a large pyramid, 8 meters high, 3 kilometers to the south of La Zarca to the west of the Ayutla-Ocós road. Out of 49 sherds, 15 are definitely Ocós and only 3 can be tied down with certainty to Conchas. The breakdown is as follows:

Ocós—1 figurine fragment, 8 Ocós Specular Red sherds, 3 Victoria Coarse sherds from tripod neckless jars with iridescent rims, 2 worn rocker-stamped sherds, and 1 Ocós Black sherd from a small simple silhouette bowl.

Conchas—1 Conchas White-to-buff grater bowl fragment, 1 Conchas Red Unburnished rim from a heavy neckless jar, 1 Conchas Orange sherd.

There therefore exists the strong possibility that the mound is Ocós in date. Only actual excavation could determine this.

La Blanca

As far as I know, no archæologist has ever visited this site. I found it while examining stereo pairs of aerial photographs of the Ocós region. It consists of several mounds, apparently very large, on the east bank of the Río Naranjo, not far from the Pampas El Guamuchal, and may well be the largest site in this part of the border region (fig. 2).

Los Limones (Coll. by Willey and Smith, 1958)

From this site, 10 kilometers south of Ayutla and east of the road a surface collection was made from the largest mound at the site. None of the sherds show any resemblance to Ocós or Conchas. There is a good deal of San Juan Plumbate, some large jars in cream monochrome with thick, everted rims and very heavy walls, and a flat stone metate with slab legs. At this site Shook (1947) discovered constructions of river cobbles set into shell-lime mortar.

La Zarca (Coll. by E. M. Shook, Lots K–19 and K–20 in *MNAE*)

The purchase collection examined from this large site 13 kilometers south of Ayutla on the banks of the Río Naranjo contains nothing of Ocós affiliations but does have two Conchas figurine fragments; one is an RE–6–a and the other is a hollow, white-slipped arm from a large RE–1 figurine. There is much San Juan Plumbate and some long, bird-headed feet from probably Post-Classic tripod grater bowls.

Santa Clara (Coll. by M. D. Coe)

The site is located on both sides of the Ayutla-Ocós road 6 kilometers south of Ayutla and is one of the largest in the area (*see* Shook, 1947). A mound, 4 meters high, has been cut by the road in the banana farm just to the east of the main road, and a collection of sherds from the cut showed only Ocós and Conchas sherds, as follows:

Ocós—2 cord-marked sherds, 1 sherd from a Victoria Coarse tripod neckless jar with iridescent rim.

Conchas—a number of sherds in Conchas White-to-buff, from dishes with outflaring sides; but, these are unslipped on the exterior like those collected by Piña Chan in Mazatán. Also Ocós Black sherds from jars and simple silhouette bowls and a sherd from a Conchas Red Unburnished neckless jar.

The collections and excavations made by Shook at the site were largely in San Juan Plumbate deposits, and the site seems largely to be ascribed to the Late Classic. It does, however, mark the northernmost extension yet known for the Ocós phase.

El Jobo (Coll. by E. M. Shook)

At this site, just east of Ayutla, Shook (1947) excavated in a mound which had been topped with an Izapa-style stela. The material was entirely Formative. Among the sherds in the *MNAE*, those from Level 3 (Lot K–9–B) and 4 (Lot K–9–C) appear to be analogous with certain forms of Crucero and Chiapa V. In red-on-orange and red-on-buff ware are composite silhouette bowls with S–Z angles and bowls with labial flanges. The interior of one red-on-orangey-buff sherd appears to have the same kind of wavy-line decoration that was found in a La Victoria sherd (fig. 37, *h*).

Buena Vista (Coll. by E. M. Shook)

This is just north of El Jobo and may be part of the same site. Among a group of San Juan Plumbate sherds and vessels (Lot K–17, *MNAE*) is one sherd which looks like it was part of an Ocós Black bowl with beveled rim of the Conchas phase. There is also one Ocós-like sherd from a simple silhouette bowl with a specular red interior. The exterior has deep line burnishing in a band and is unslipped. The thinness of the sherd is another Ocós characteristic.

El Sitio (Coll. by E. M. Shook)

As Shook (1947, p. 180) states, there are two distinct occupations of this site, located 18 kilometers north of Ayutla. One is Formative and the other is quite late and characterized by plumbate. My own examination of the material deposited in the *MNAE* convinced me that the Formative actually comprises more than one phase at El Sitio. Cut 1 produced near the bottom (2.75–4.75 meters) of platform fill Conchas figurines (an RE–6–a head and a Type 1 body) and orange monochrome everted rim dishes of Conchas 2 appearance, but softer in paste. This pottery was found throughout the platform. Cuts 3 and 4 produced material which clearly checks with Crucero and Chiapa V, including orange and orangey-red composite silhouette bowls with S–Z angles. Cut 5 seems to have been into mixed Crucero-like and Conchas-like materials. One figurine fragment is a large, hollow head like RE–1, but with a more slanting eye. The earlier part of El Sitio, then, would be contemporary with Conchas 2 and Crucero.

La Guitarra (Coll. by M. D. Coe)

Between kilometers 196 and 197 the highway running south from Retalhuleu to Champerico has cut through a mound about 5 meters high. Sherds picked from the cut faces of the mound appear to be coeval with late Conchas 2. There is a high incidence of sherds from dishes with everted, grooved rims in a ware which probably is Conchas Orange. However, other Conchas types are absent. There is a white monochrome, but it is much more enamelly in appearance and lacks the "fish-scale" effect. A figurine head purchased from the family who live on one part of the site is Formative, but not Conchas. The eye is of the coffee-bean type, with double impress but no punched pupil.

Salinas de Ixtan (Coll. by M. D. Coe; *see also* Kidder, 1940)

At the salt works east of Champerico, the remains of several leveled mounds can be seen just in back of the present-day beach. The collection described by Kidder and the sherds picked up by myself include red, brown, and white monochrome vessels with fine-line

incising, tripod nubbin or swollen feet, and Usulután decoration; Kidder places them on the same level as the Late Formative Miraflores phase, to the ceramics of which they bear a close resemblance.

Los Toros (Coll. by E. M. Shook; *see also* Drucker, 1948, p. 156)

Fourteen kilometers south of Tapachula is the site of Los Toros, and sherds from the fill of a large mound at the site (Lot F–9, *MNAE*) are all Formative. Wide, everted rims are common, like those of the simple Conchas 2 dishes in Conchas Orange, but the ware and elaborate treatment of the Conchas examples are absent. Many of the sherds resemble those of the Crucero phase more closely, including labial flange bowls and red-on-orange incised wares.

Mazatán (Coll. by R. Piña Chan)

Southwest of Tapachula near the coast, the site of Mazatán-produced pottery which is clearly affiliated with both Conchas and Chiapa II–IV. Many hard, white, monochrome sherds are similar in form, decoration, paste, and temper to Conchas White-to-buff, but lack the "fish-scale" effect. Unlike Conchas, they are usually burnished but unslipped on the interior; the effect is sort of a white-on-natural, as in Chiapa II, but they are much harder. No dishes in this ware are evident, but collared jars are usual. There are also orange monochrome sherds which look more like those of Chiapa III and IV than those of Conchas. Some of the materials collected by Piña Chan may be somewhat later. Sherds from bowls and jars in brown or red monochrome with coarse post-slip grooved decoration resemble not only the Late Formative materials from Los Toros but also certain Miraflores and Arenal vessels from the highlands.

Acacoyagua I (Coll. by P. Drucker; *see* Drucker, 1948, figs. 7 and 8)

The figurines illustrated by Drucker from this site are very strange and bear little resemblance to any from La Victoria. The type, however, shows up in the demonstrably Late Formative site of Finca Arizona, near Puerto San José in Guatemala. Moreover, there are a number of ceramic features which would suggest such a chronological placement for this site in Chiapas, such as labial flanges and solid, nubbin feet.

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ABBREVIATIONS

AMNH American Museum of Natural History, Anthropological Papers, New York.

BAE Bureau of American Ethnology, Washington.

CIW Carnegie Institution of Washington, Washington.

CIWCAAH Carnegie Institution of Washington, Contributions to American Anthropology and History, Cambridge.

CIWNMAAE Carnegie Institution of Washington, Notes on Middle American Archæology and Ethnology, Cambridge.

MARR Middle American Research Records, Tulane University, New Orleans.

TAPS Transactions of the American Philosophical Society, Philadelphia.

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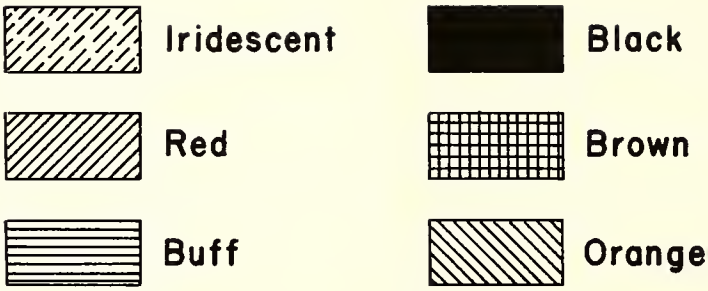
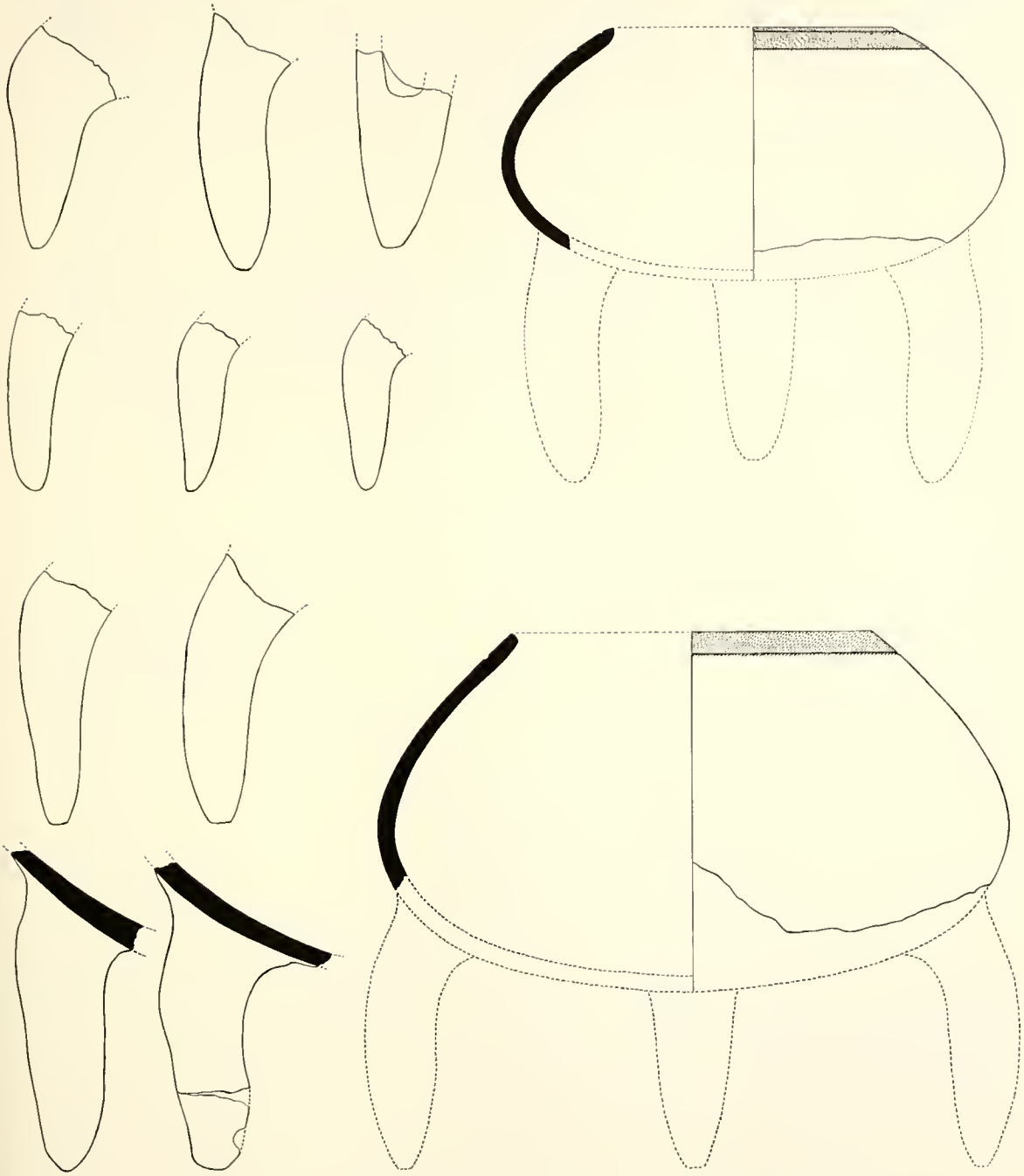
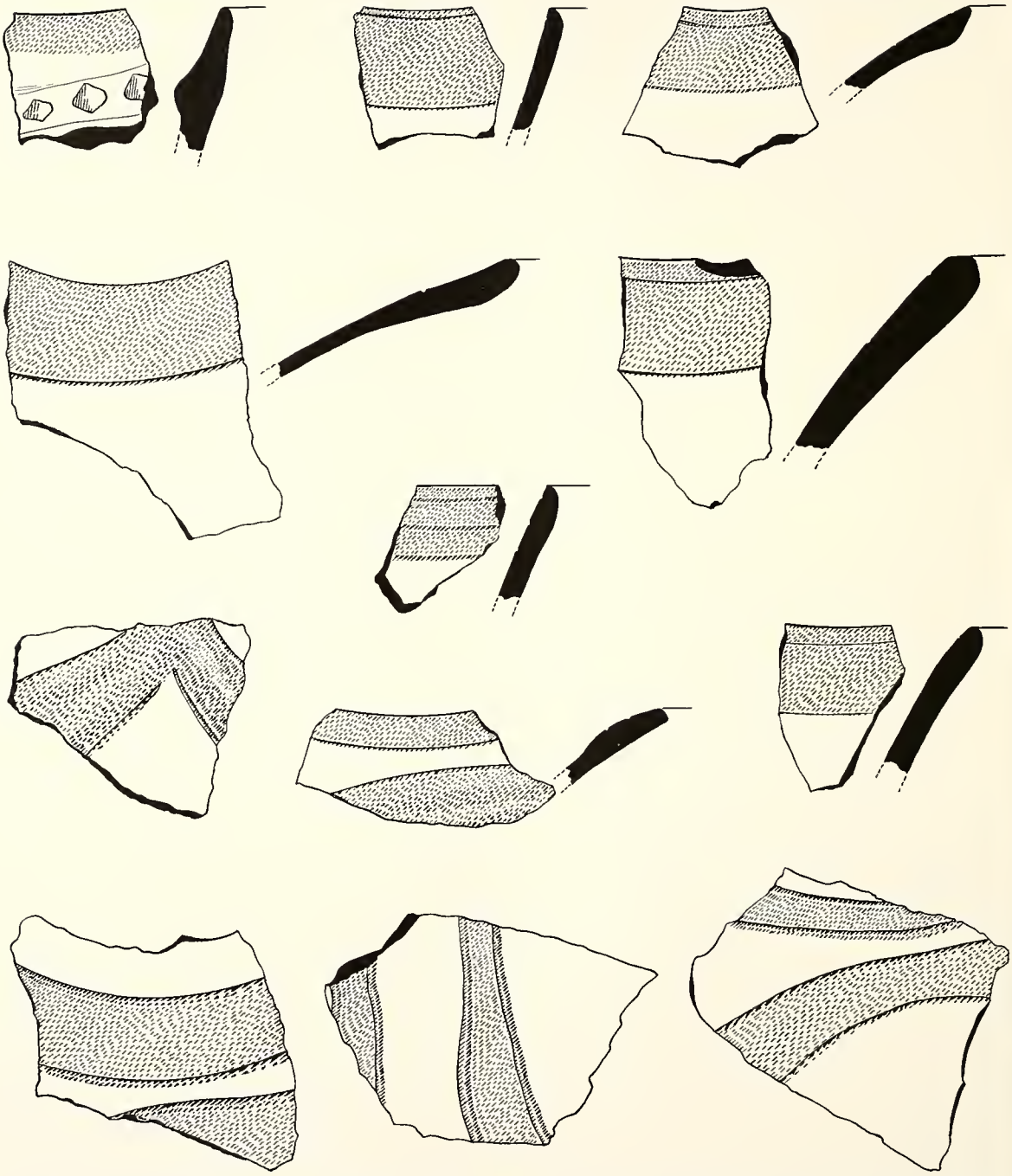


Fig. 13. Key to color symbols used in the illustrations.

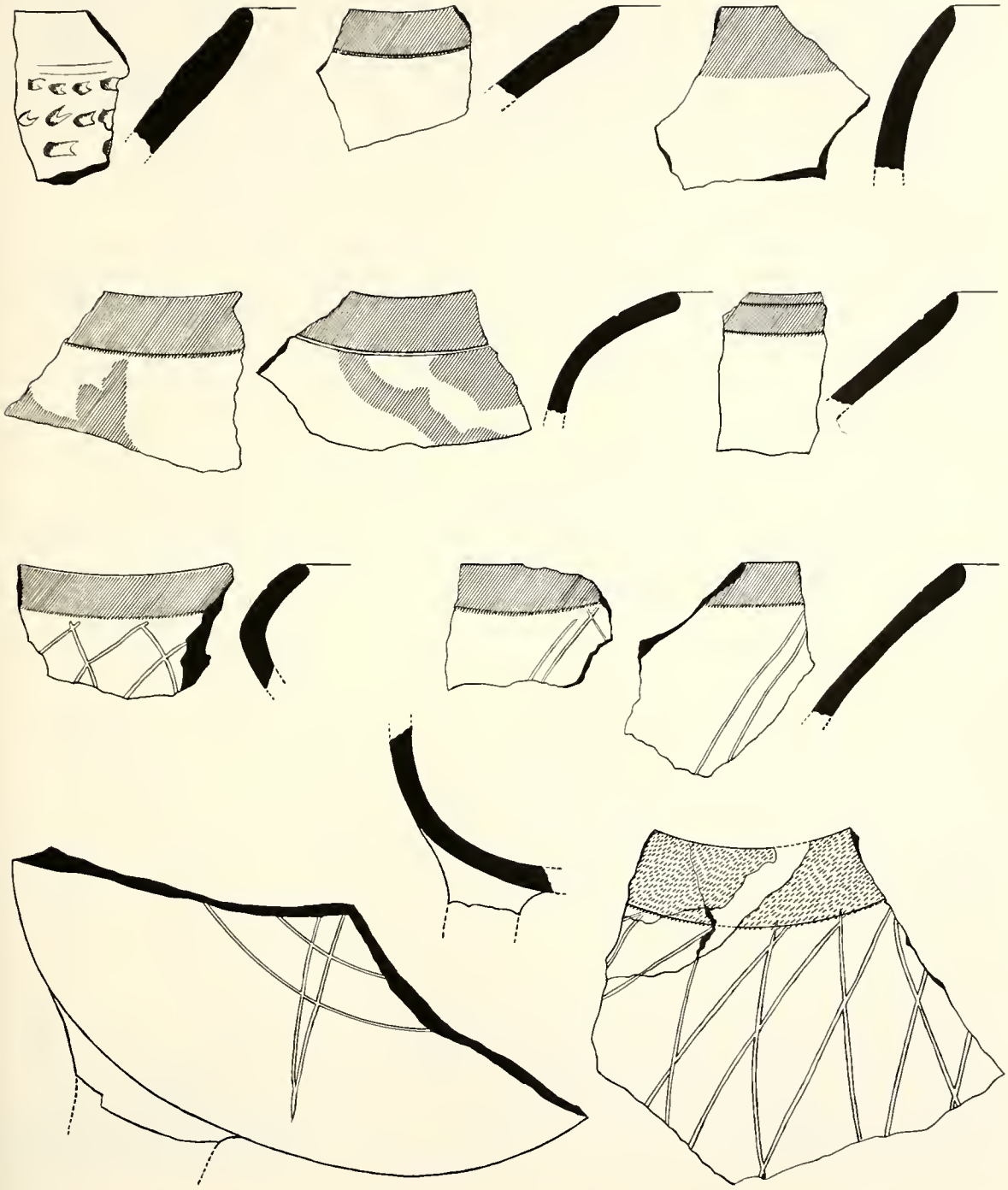
All line drawings were rendered full size except figure 31, *b*, which was drawn half size, They have been reduced as follows: figures 24, 31%; 14, 25–27, 29–37, 32%; 28, 33%; 42, 36%; 20, 44%; 15–19, 21, 23, 38, 41, 43, 48%; 22 and 40, 50%; and 39, 51%.



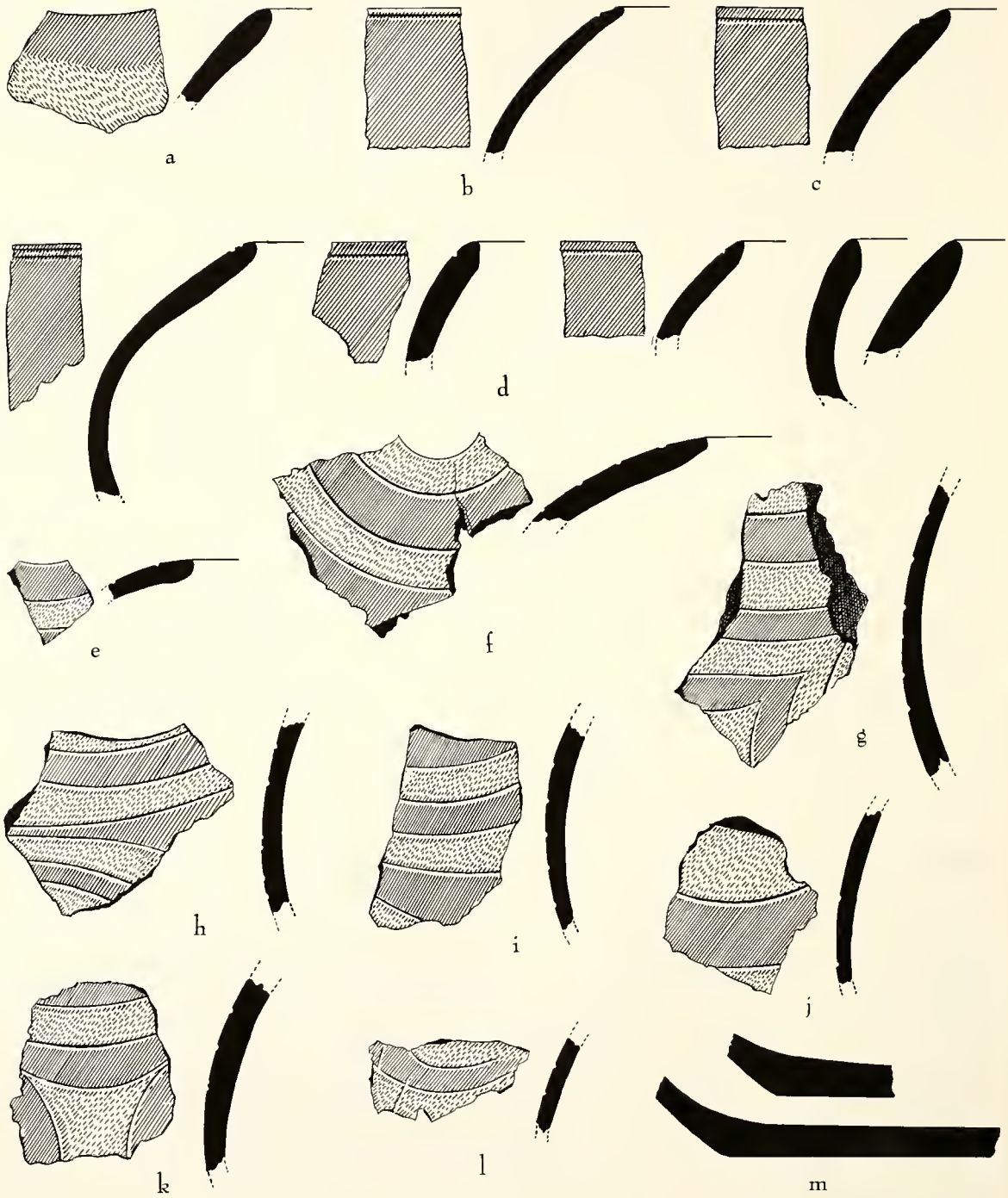
Victoria Coarse pottery of the Ocós phase. Tripod, neckless jars with iridescent rims.



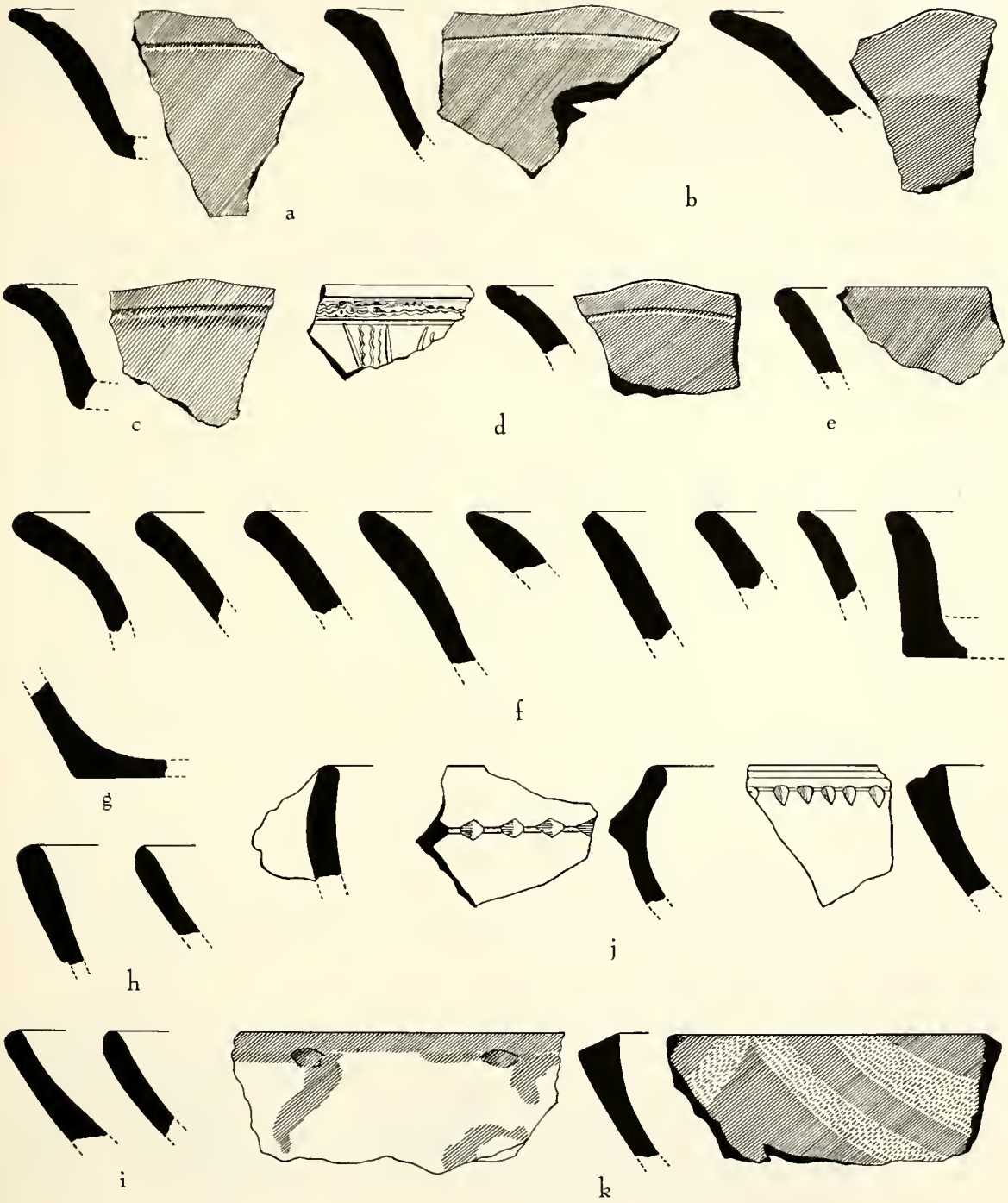
Victoria Coarse pottery of the Ocós phase. Tripod, neckless jars with iridescent painting on rims and bodies.



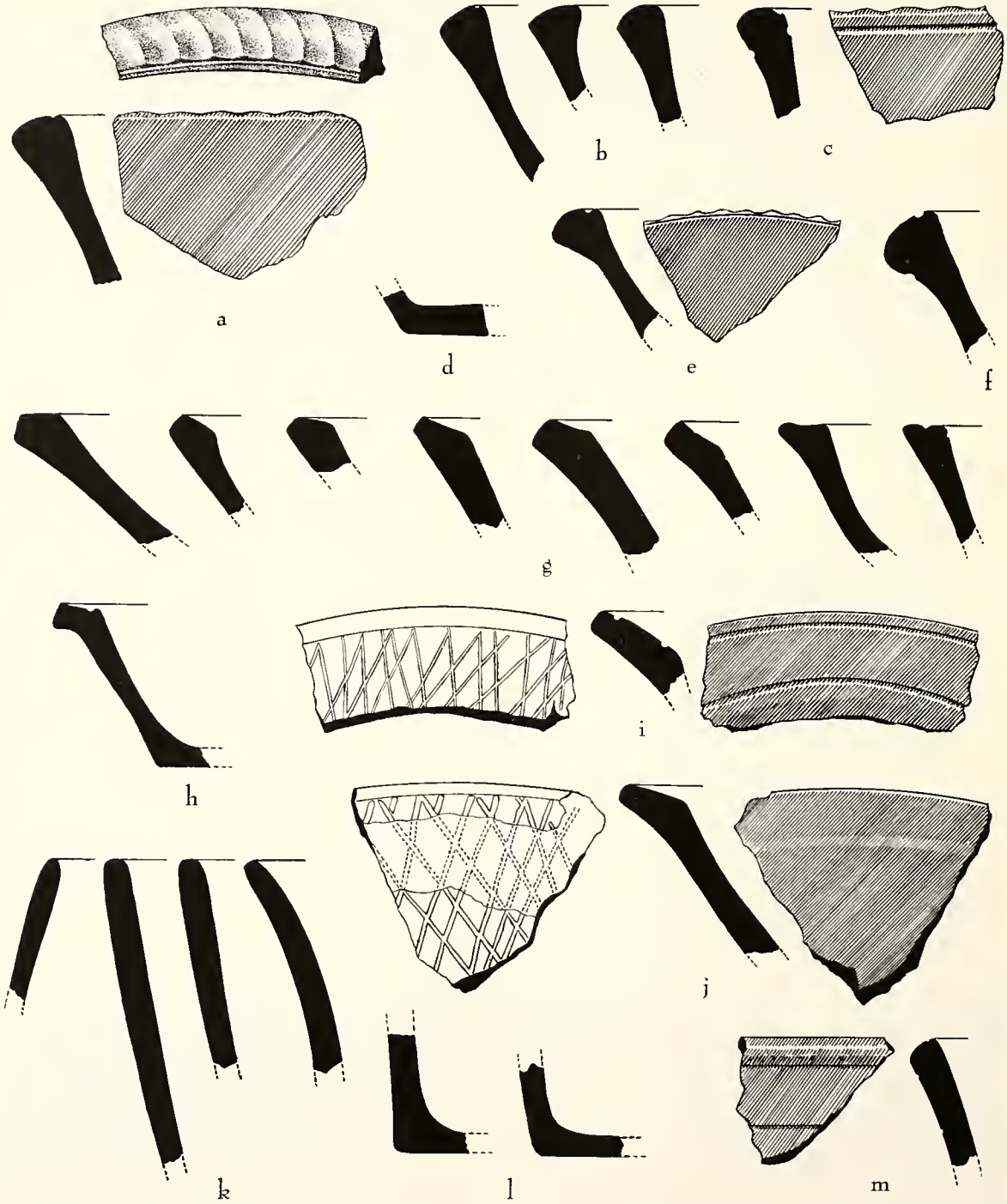
Victoria Coarse pottery of the Ocós phase. Tripod, neckless jars. One is pinched on the exterior, and several have specular hematite paint on the rims. Some have line burnishing below the rims.



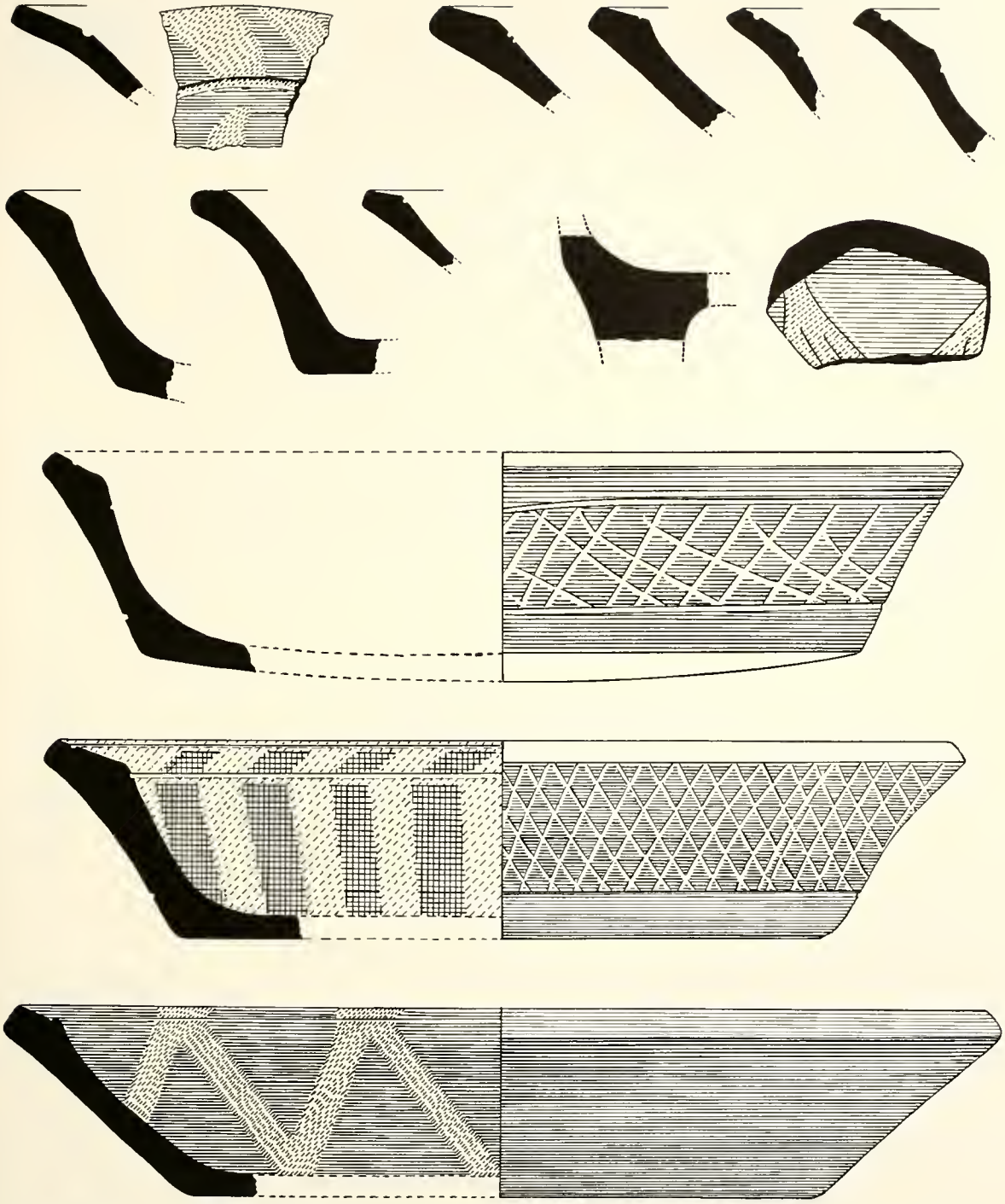
Ocós Specular Red pottery, Ocós phase. Thin-walled, neckless jars. *e–l* have zones of iridescent painting.



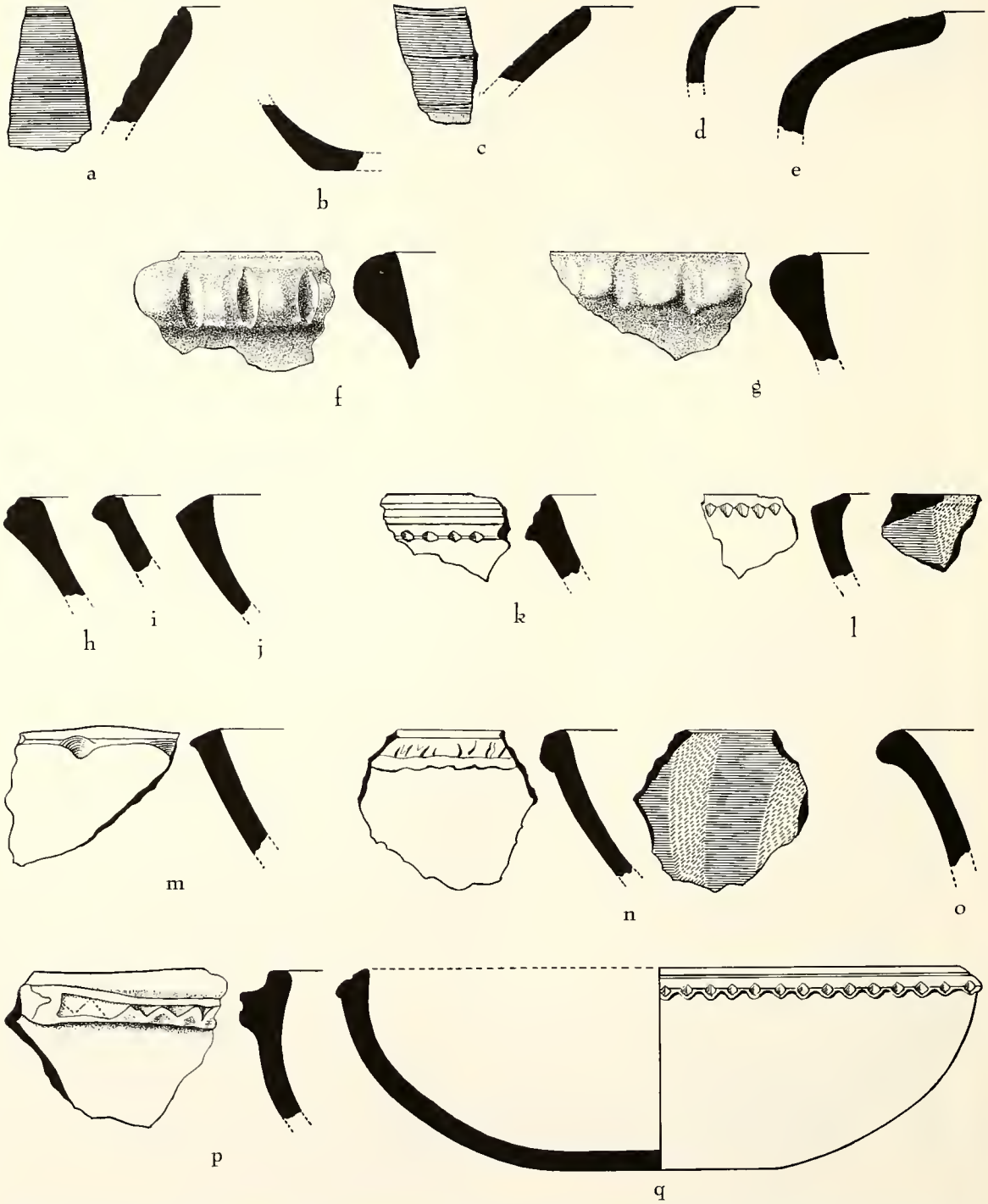
Ocós Specular Red pottery, Ocós phase. *e* has simple shell-edge stamping on the exterior; *j* and *k* are striped with iridescent paint on the interior.



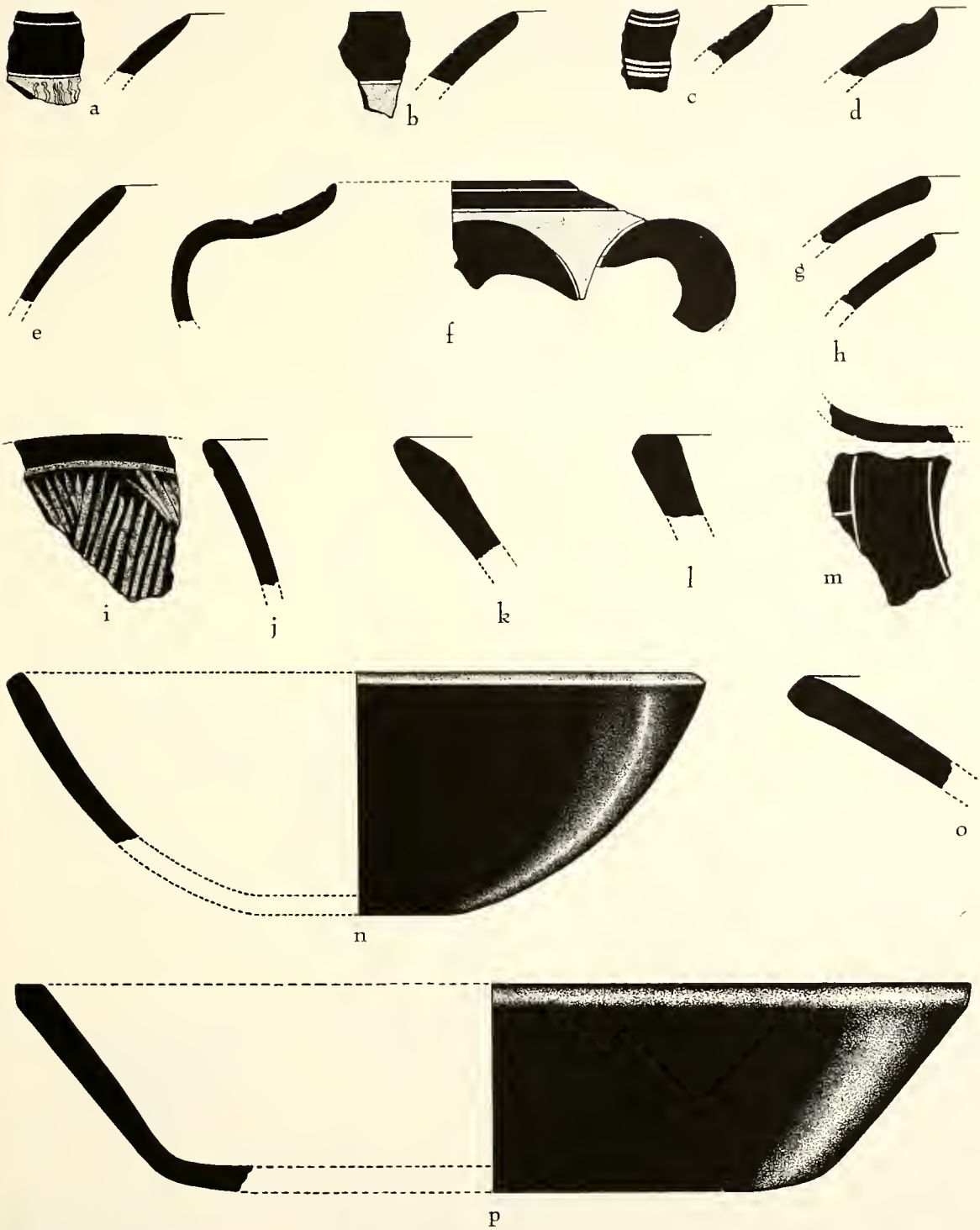
Ocós Specular Red and Ocós Red Burnished pottery, Ocós phase. *a–l* are Ocós Specular Red, *m* is Ocós Red Burnished. *a–c*, *e–f* have gadrooned rims; *i–j* have indented-line cross hatching on buff exteriors.



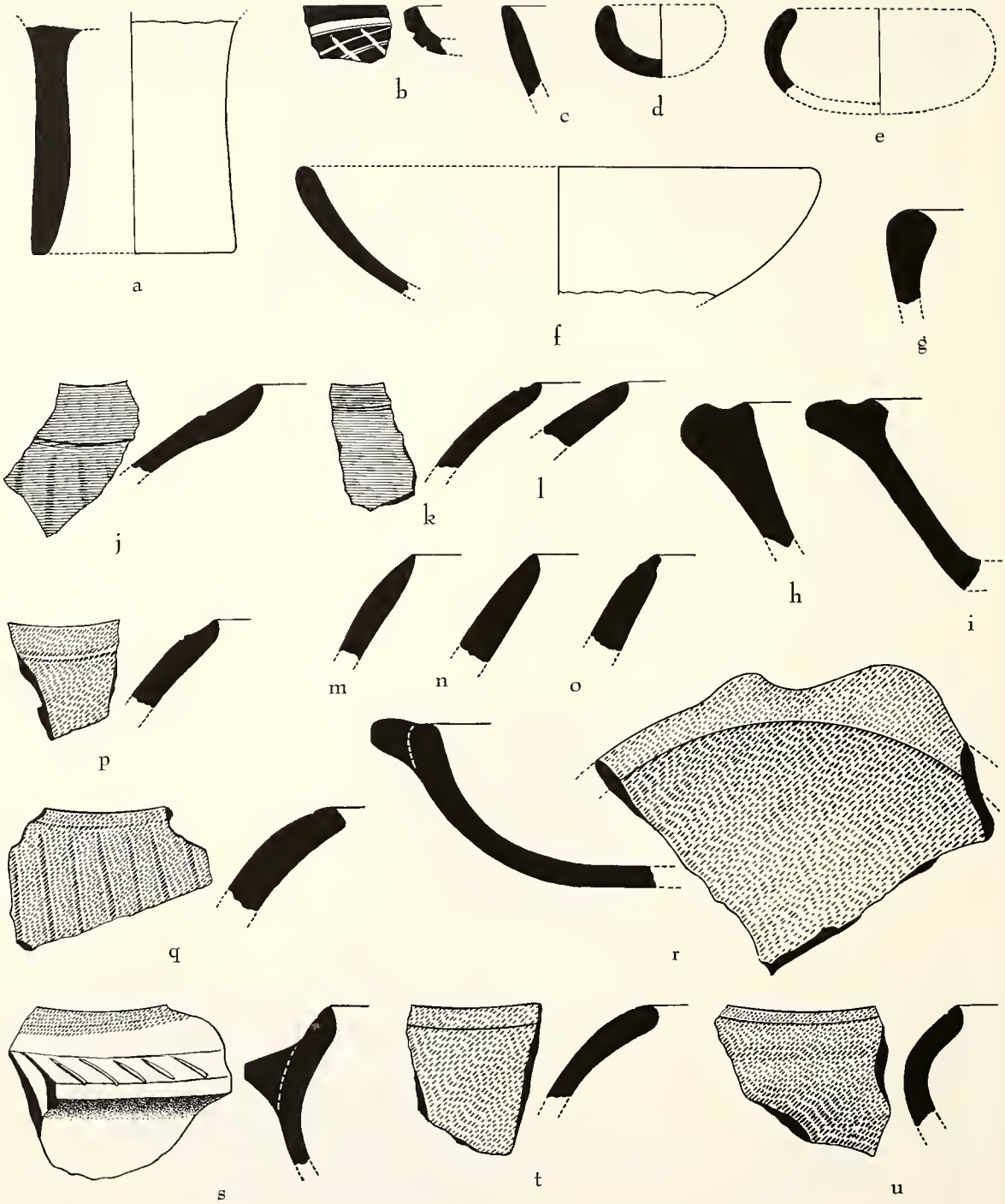
Ocós Buff pottery, Ocós phase. Flat-bottomed dishes with interior striping in iridescent paint. The sherd on the right, second row from top, apparently was from a dish with tripod supports and with a zoned "sun burst" pattern in iridescent paint on the interior.



Ocós Buff pottery, Ocós phase. *f–g* have gadrooned rims; *k–n* are decorated with interior striping in iridescent paint.

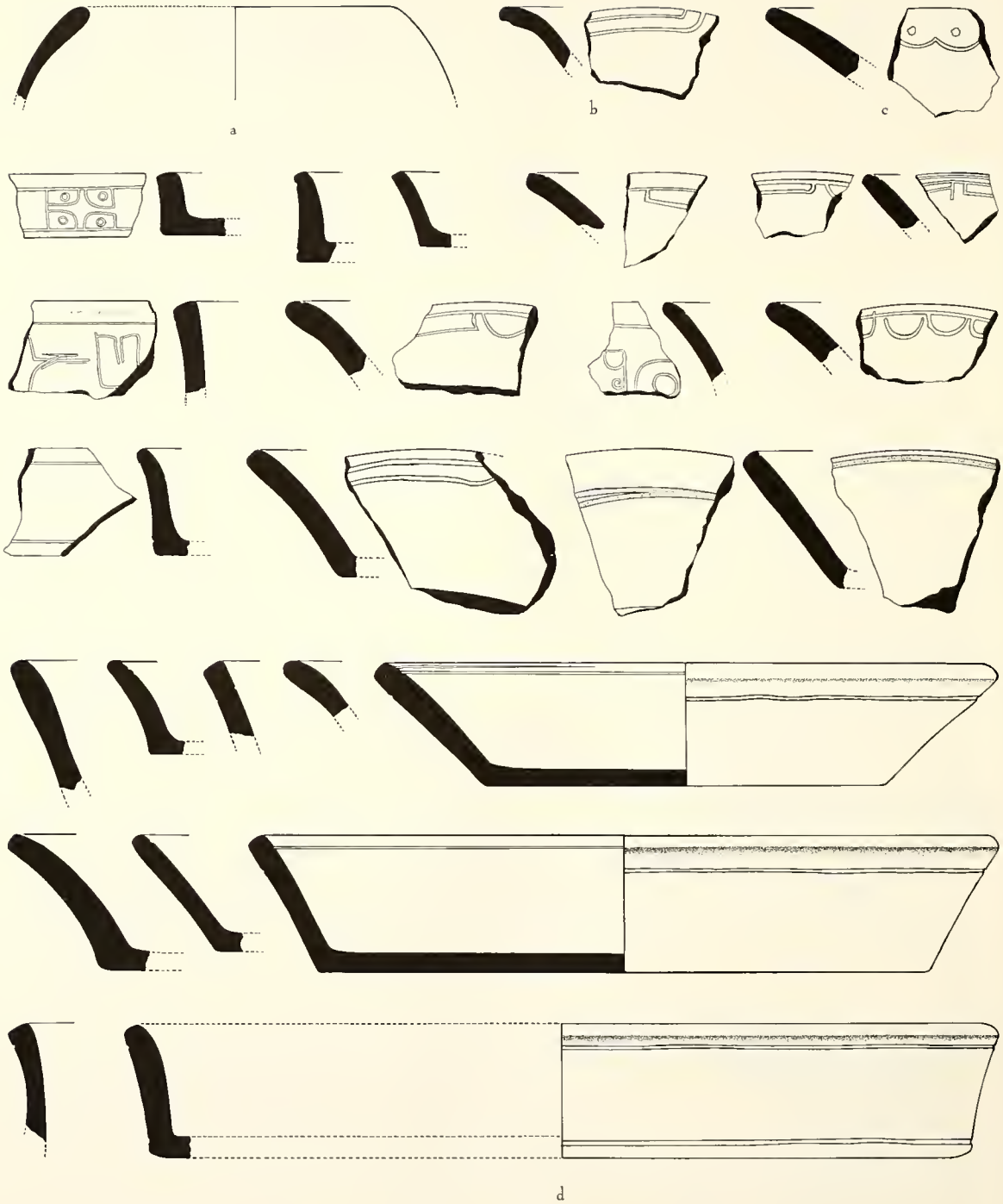


Ocós Black pottery, Ocós phase. *a* has shell-edge rocker-stamping on the exterior; *b* and *f* are zoned-burnished; *i* has all-over indented-line burnishing.

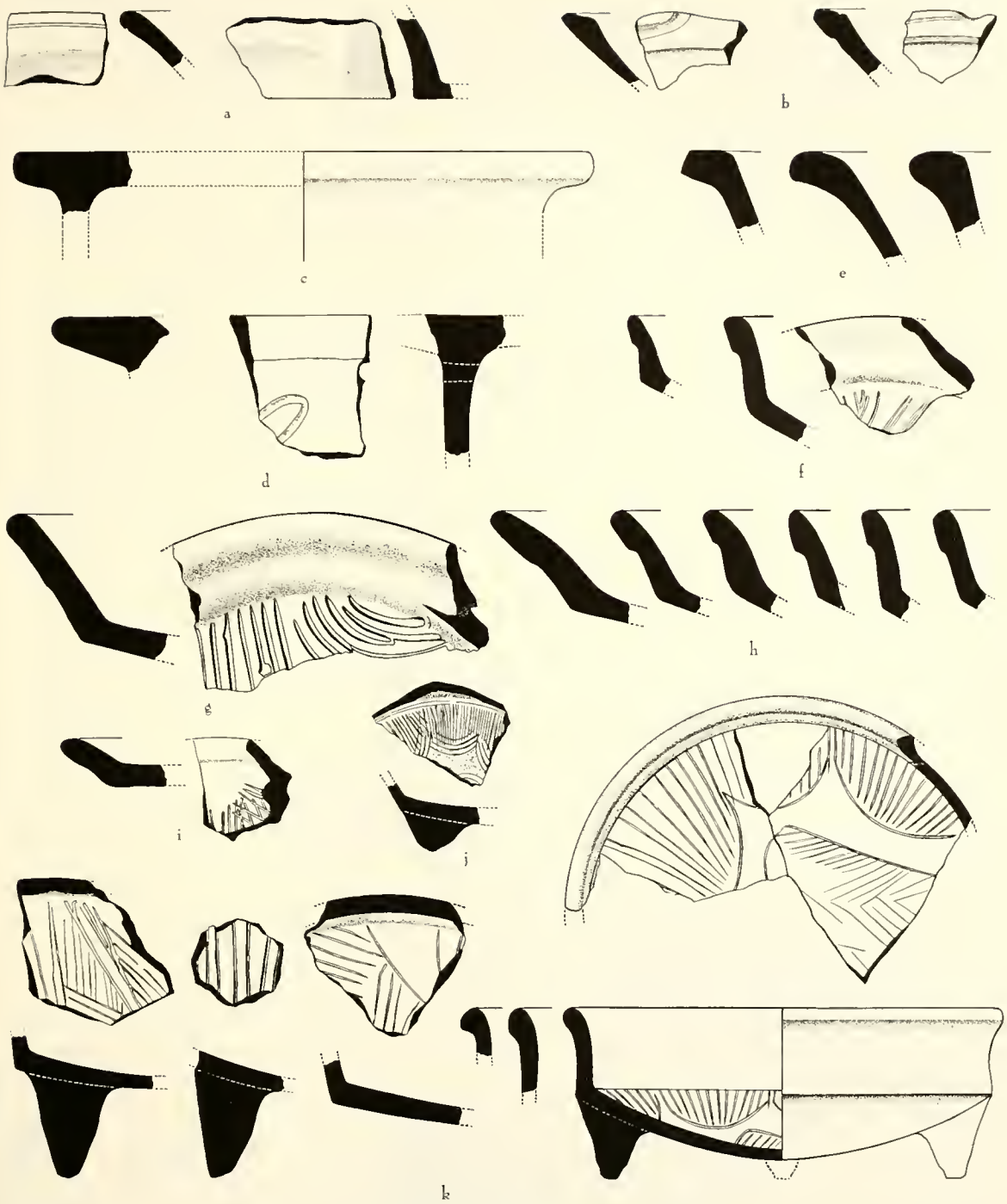


Various pottery types of the Ocós phase. *a–f*, Victoria Coarse; *g–i*, Ocós Black; *j–l*, Ocós Brown Burnished; *m–o*, Ocós Gray; *p–u*, Ocós Iridescent. *a* is possibly an incensario fragment.

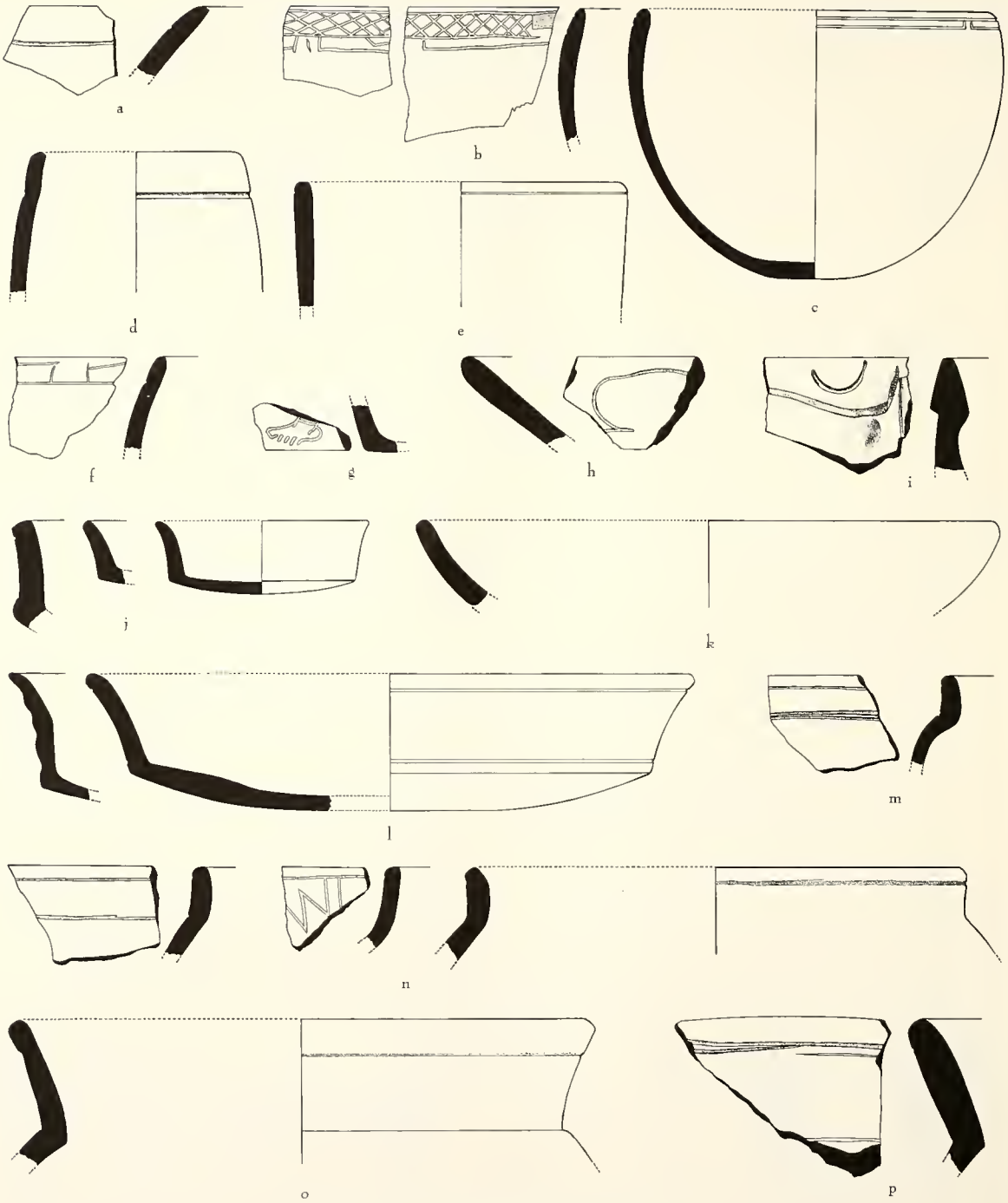
Pottery of the Conchas phase: Victoria Coarse, Conchas Brown Unburnished, and Conchas Red Unburnished. *a*, Victoria Coarse bowls; *b*, Conchas Brown Unburnished neckless jar; rest, Conchas Red Unburnished.



Conchas White-to-buff pottery of the Conchas phase.



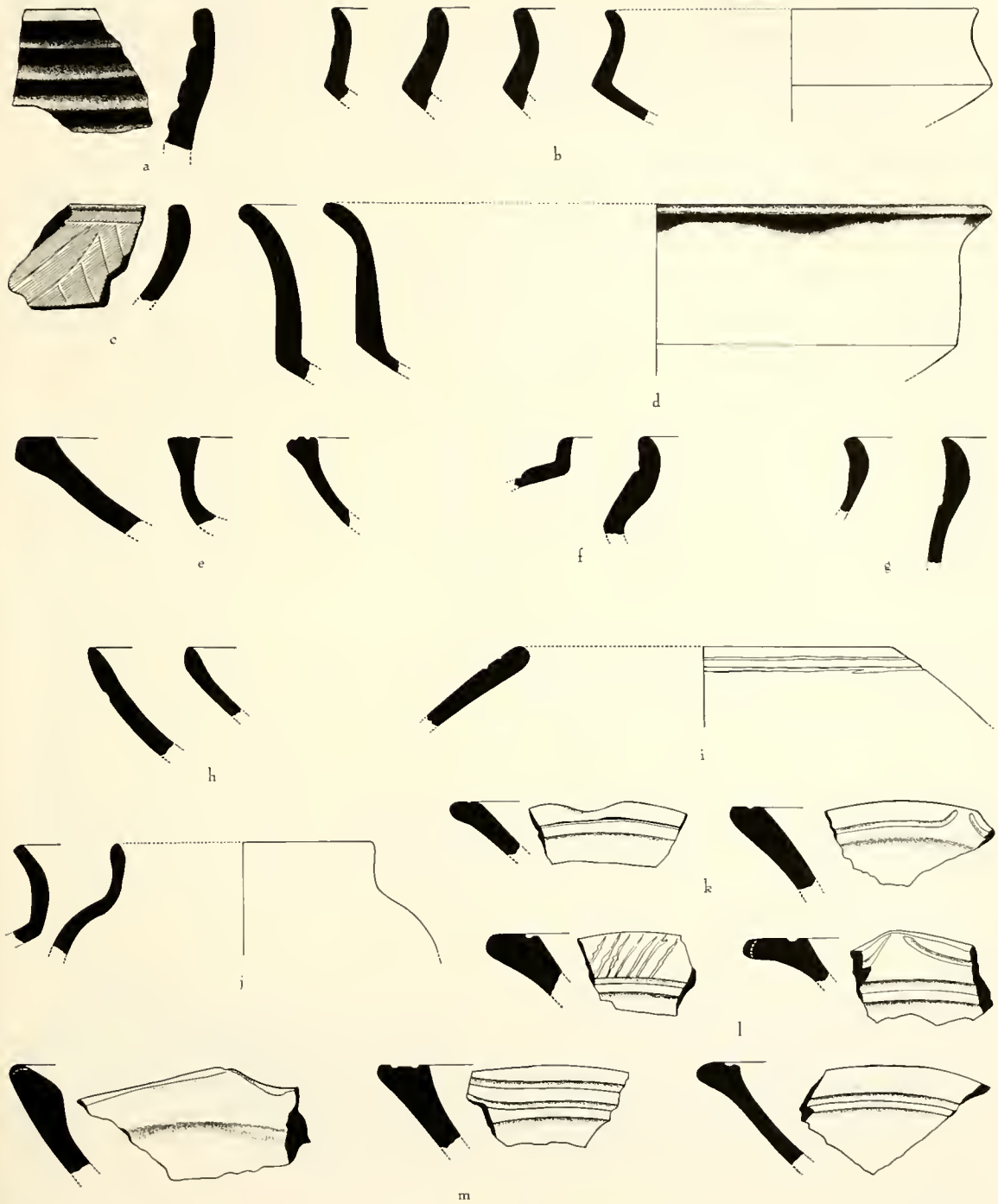
Conchas White-to-buff pottery of the Conchas phase. *a*, negative-painted dishes; *c–d*, pottery stool; *f–h*, tripod grater bowls with flattened bolster rims, Conchas 2 subphase; *i–k*, tripod grater bowls with rounded rims, Conchas 1 subphase.



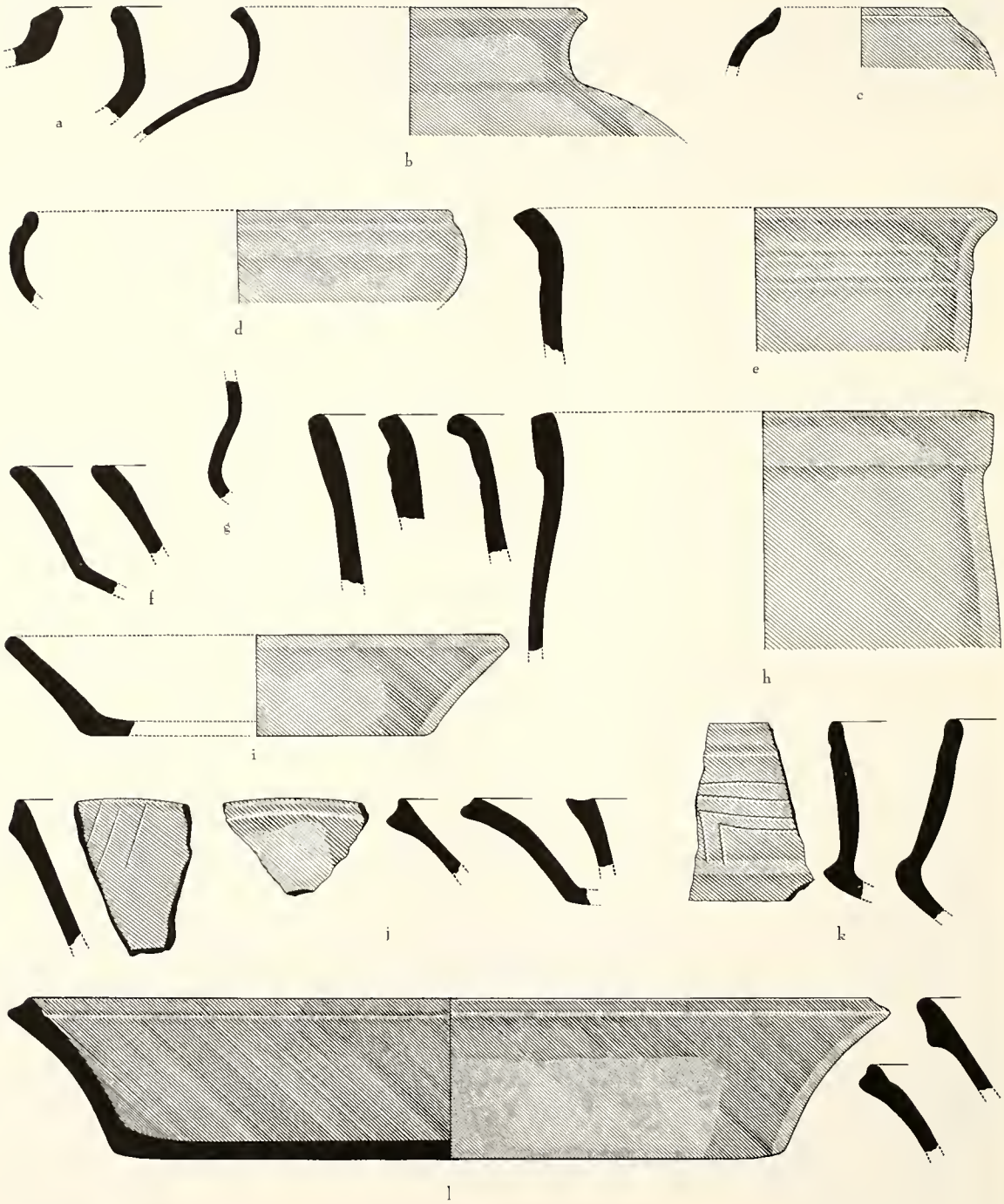
Conchas White-to-buff pottery, Conchas phase.

Ocós Black pottery of the Conchas phase. All of the excised sherds here, and most of the others, are from Conchas 1 deposits.

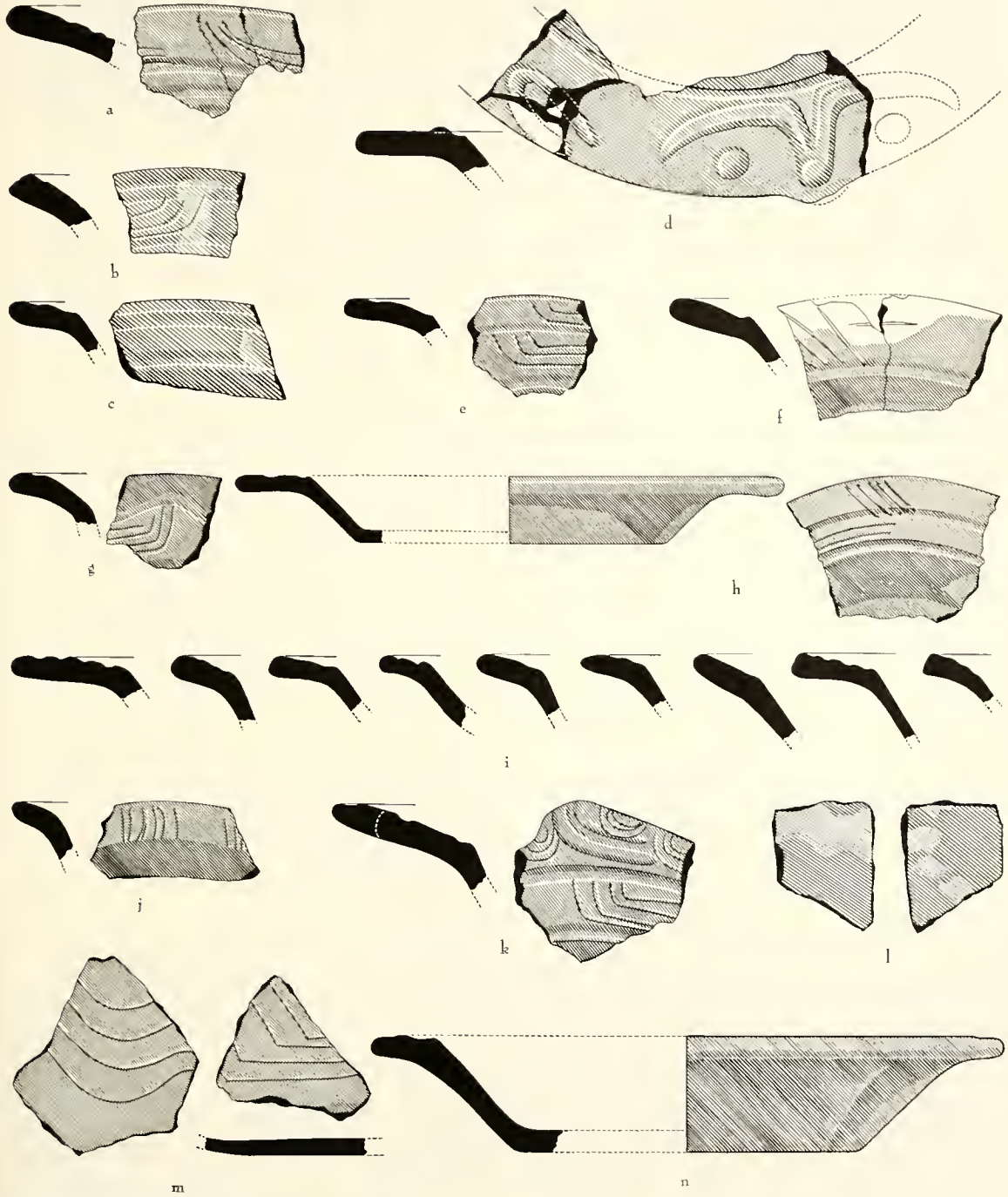
Ocós Black pottery of the Conchas phase. *b*, *l*, *m* are white-to-buff on the exterior below the rim; *l* and *m* are striated in these areas. *i* is heavily coated with red pigment.



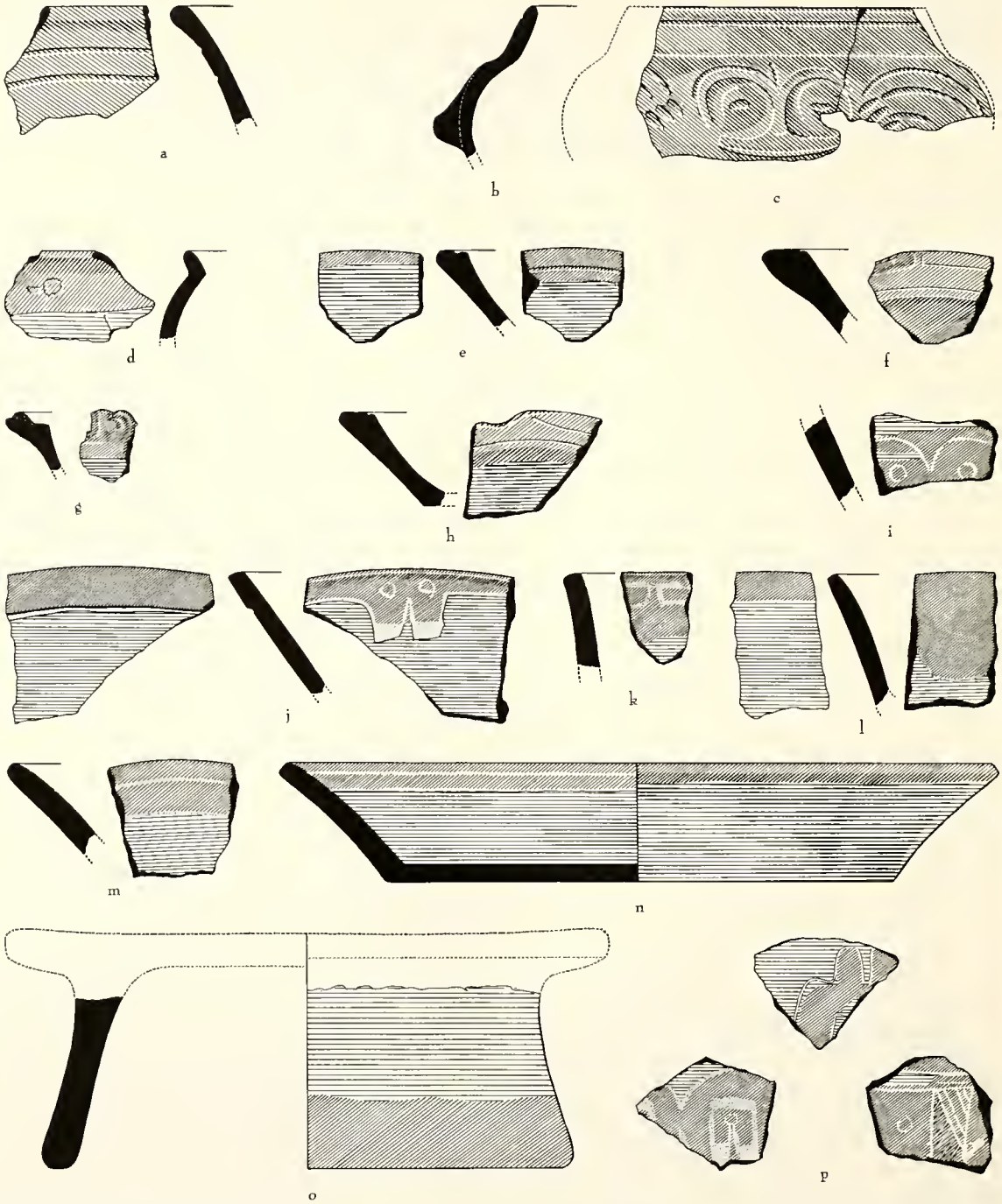
Ocós Black and Ocós Gray pottery of the Conchas phase. *a–g*, Ocós Black (*c* is red on the exterior); *h–m*, Ocós Gray.



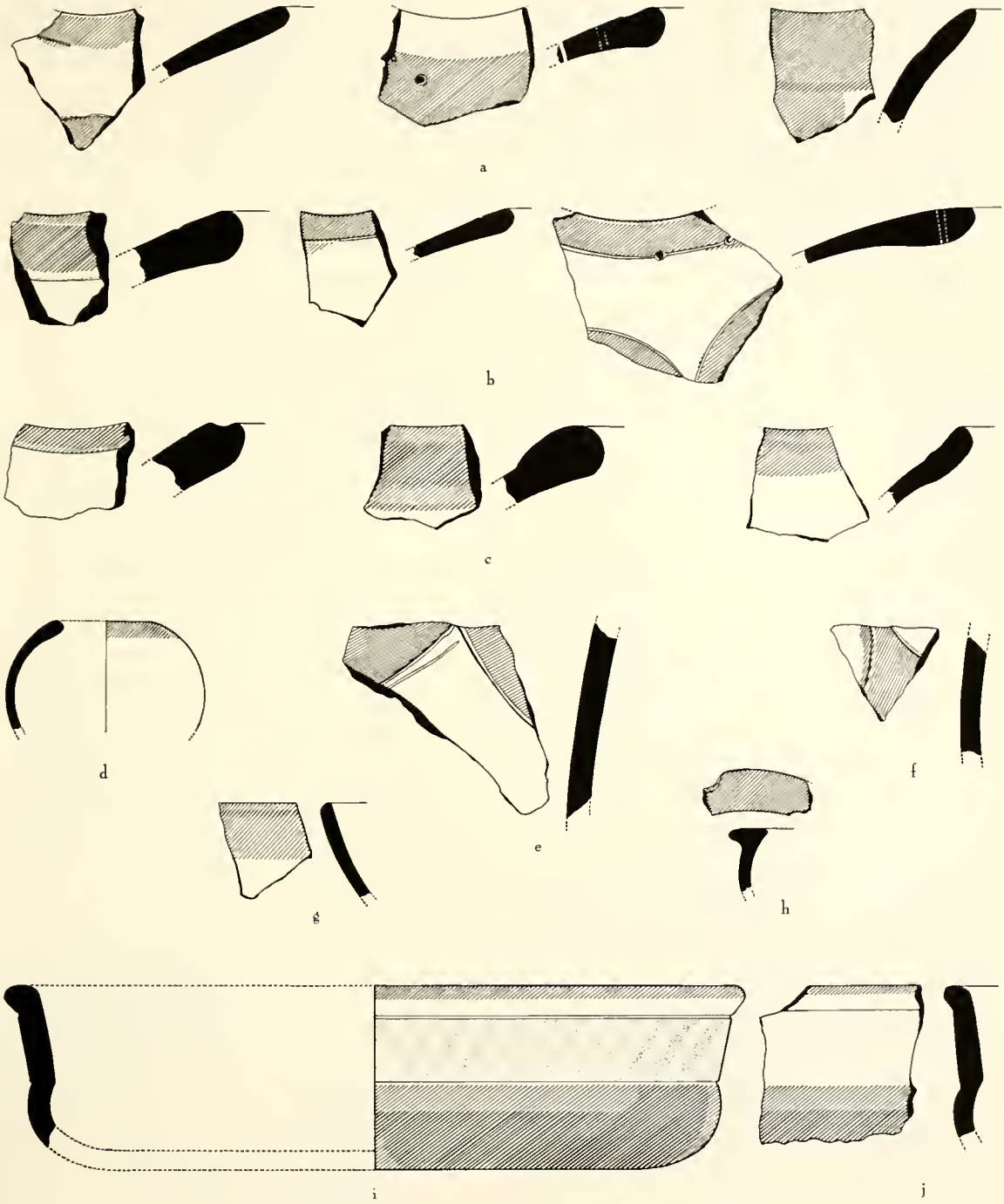
Conchas Orange pottery, Conchas 2 subphase. Resist painting is indicated on *j*.



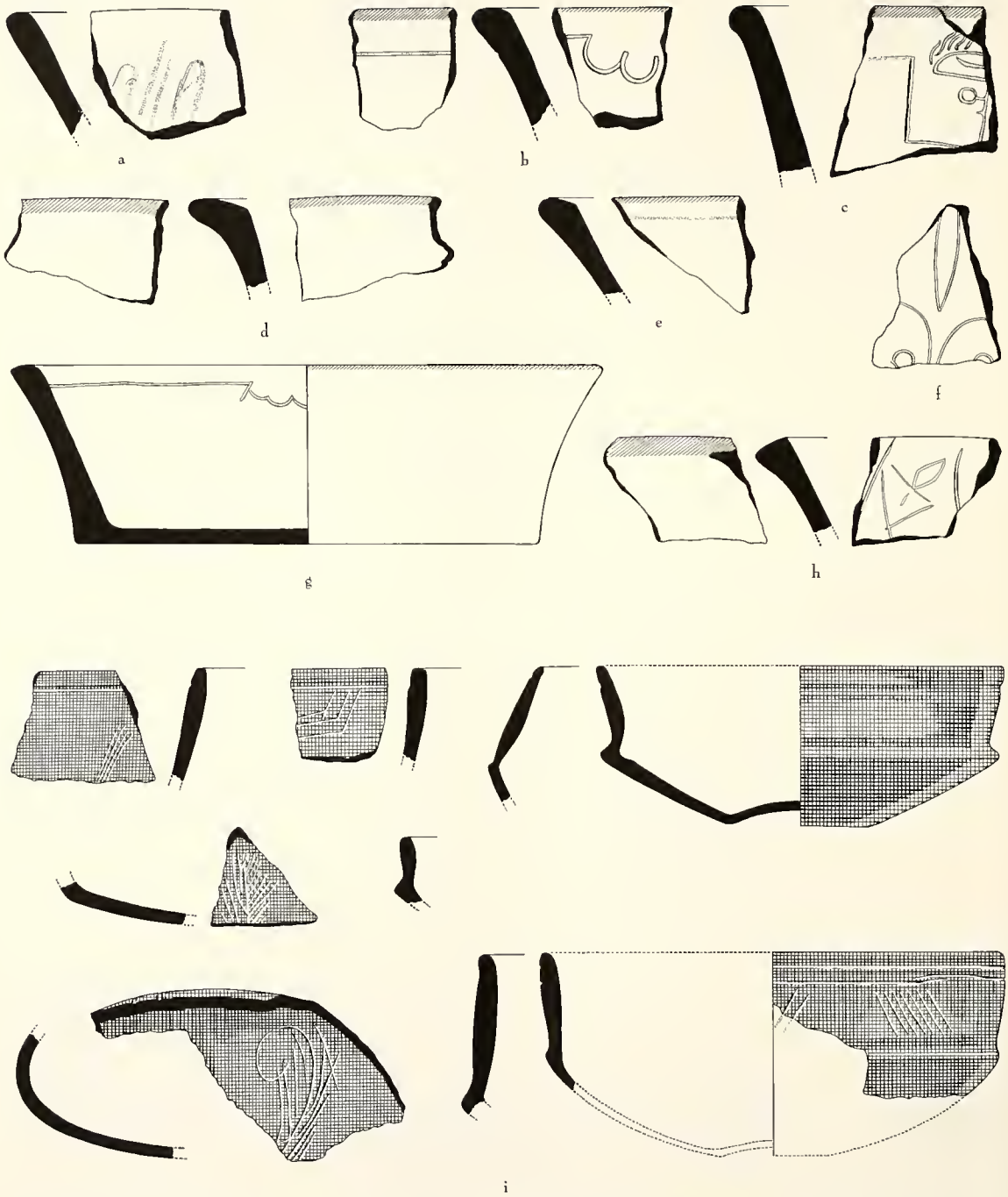
Conchas Orange pottery, Conchas 2 subphase. Resist painting (Usulután "clouds") appears on *b–c*, *f*, and *l*.



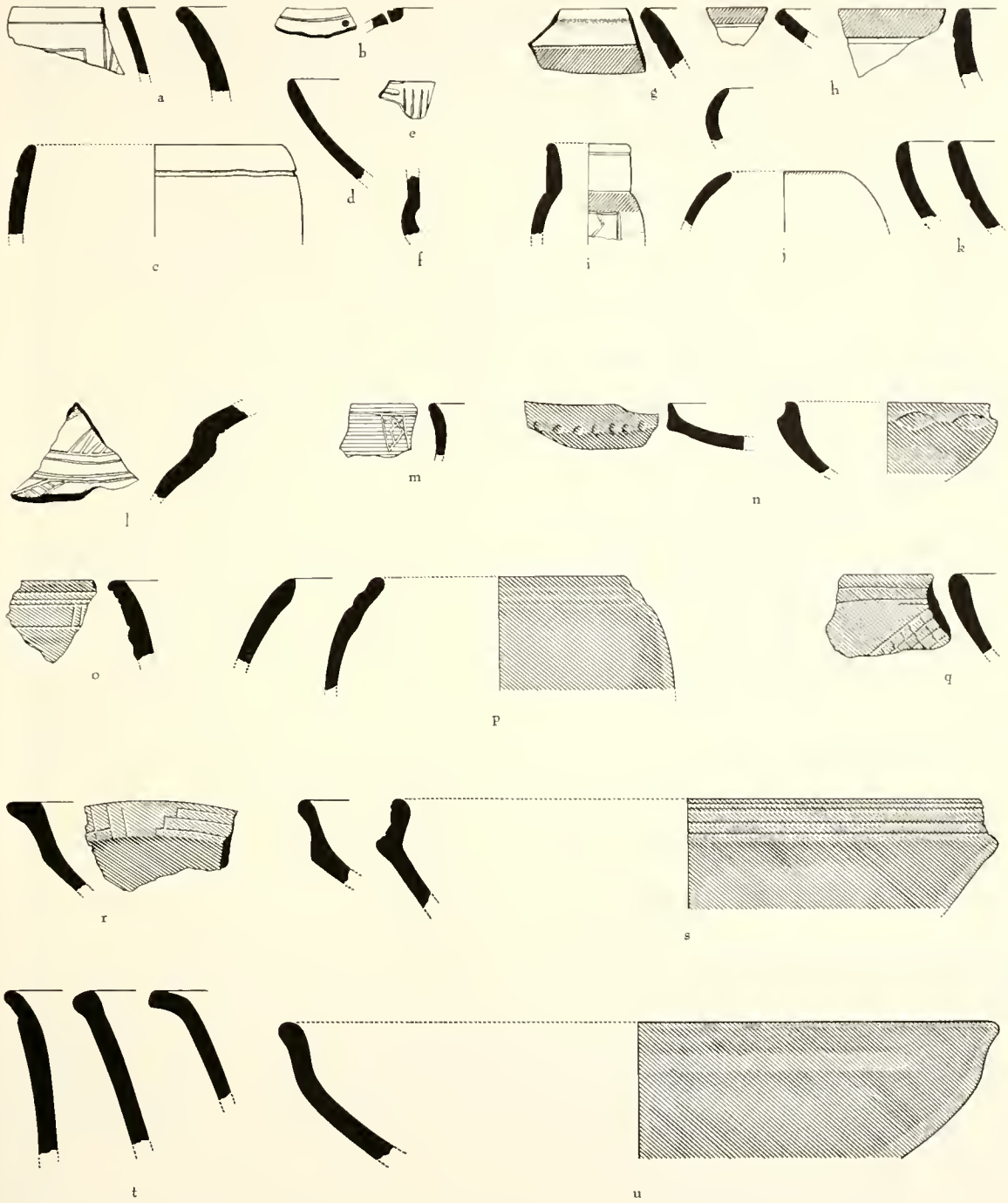
Río Blanco Orange and Conchas Red-on-buff pottery, Conchas phase. *a–c*, Río Blanco Orange; *d–p*, Conchas Red-on-buff; *p*, interior zoning of dishes or bowls.



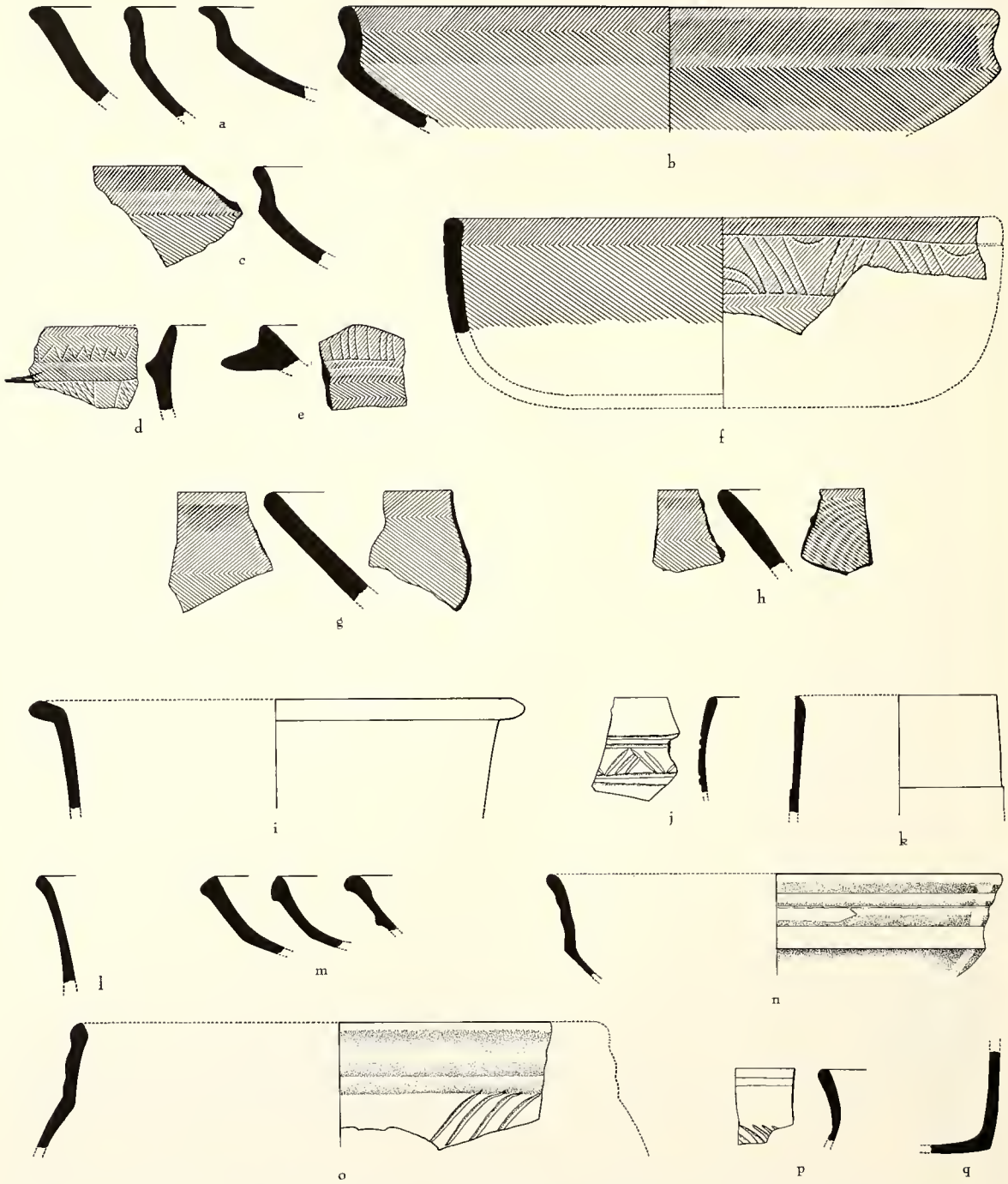
Conchas Red-and-white pottery, Conchas phase. Negative painting is indicated on the white-to-buff zone of the cuspidor shown in *i*.



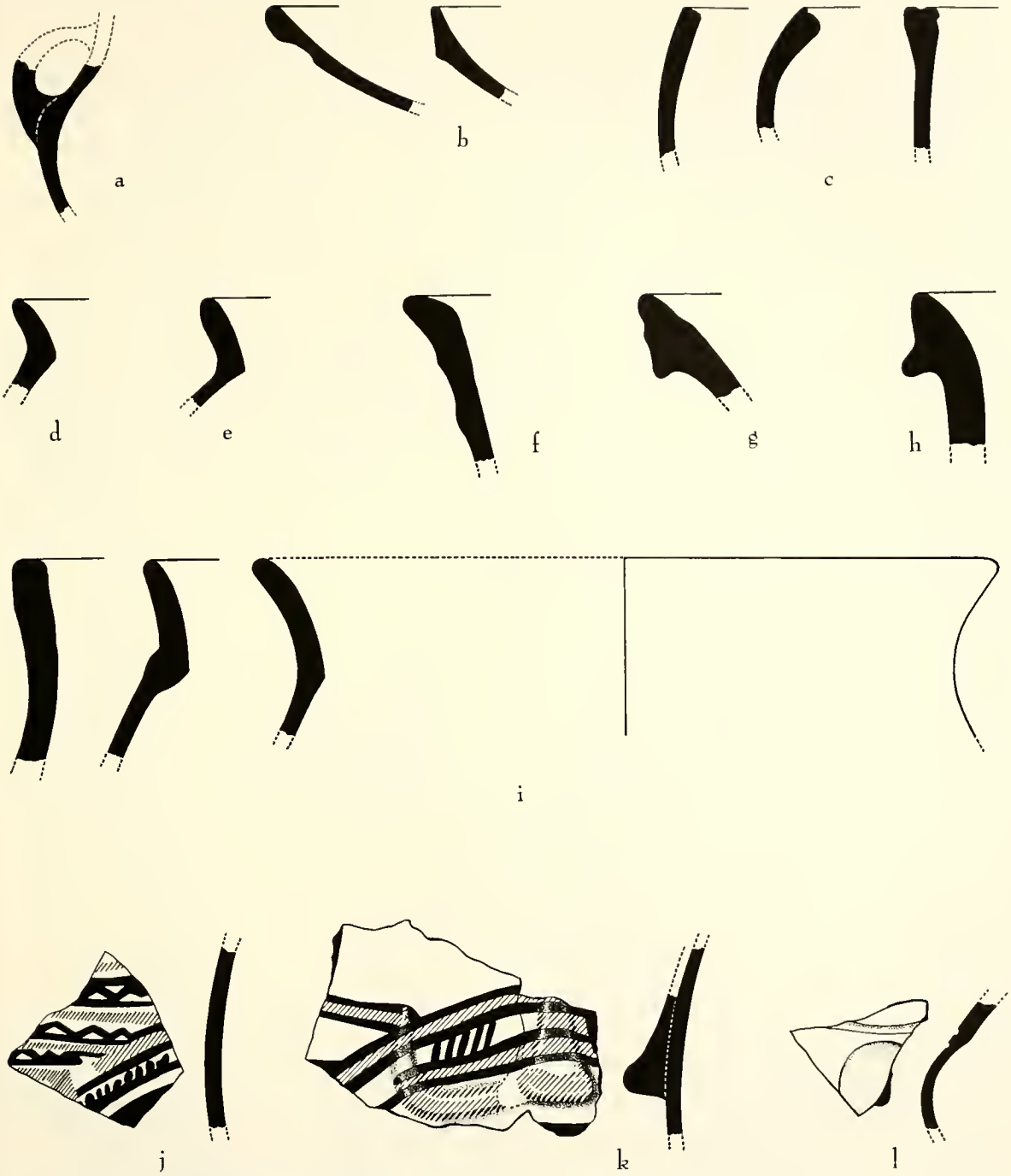
Conchas Red-and-white and Conchas Streaky Brown-black pottery, Conchas phase. *a–b*, Conchas Red-and-white; *i*, Conchas Streaky Brown-black.



Miscellaneous Conchas and Crucero phase pottery types. *a–f*, Conchas Fine White-to-buff, Conchas phase; *g–k*, Conchas Fine Red-on-cream, Conchas phase; *l*, Conchas White-to-buff pottery lid, probably Crucero phase; *m*, Ocós Buff, Crucero phase; *n–u*, Conchas Orange pottery, Crucero phase.

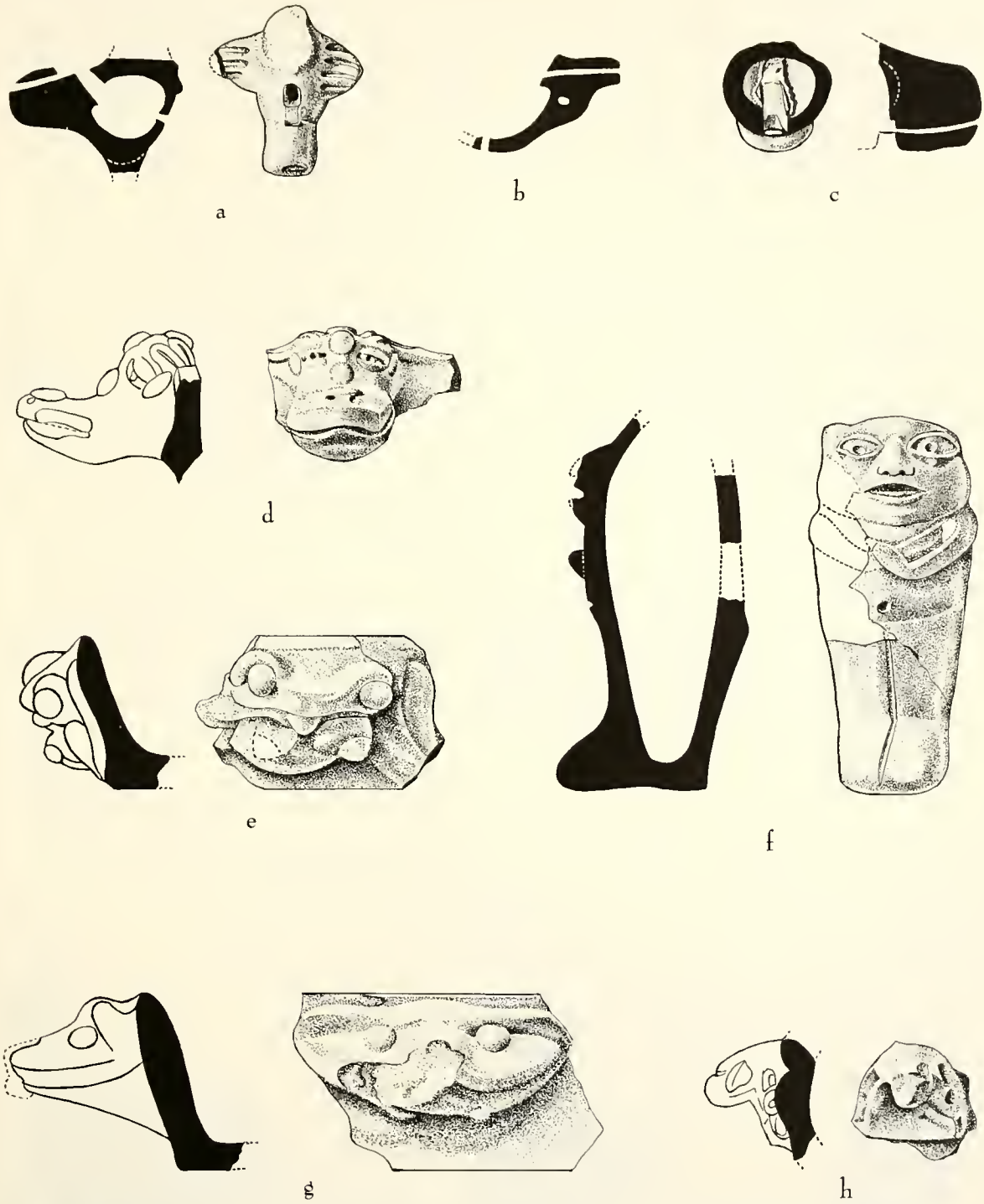


Miscellaneous Crucero and Marcos pottery types. *a–f*, Crucero Red-on-orange, Crucero phase; *g–h*, red-on-orangey-buff sherds, Crucero or Marcos phases; *i–q*, San Juan Plumbate, Marcos phase.

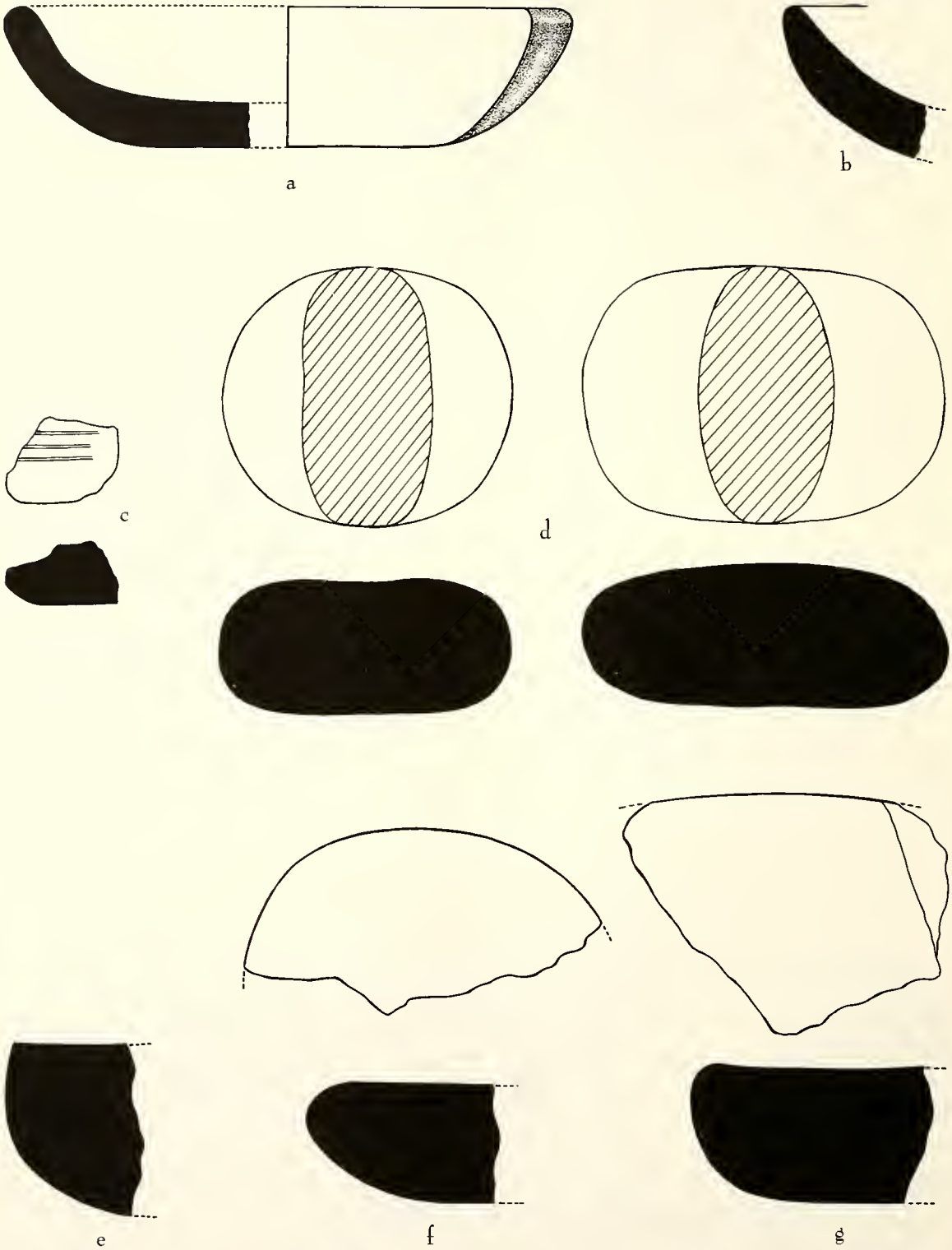


Pottery of the Marcos phase and some Post-Classic sherds. *a–i,* Victoria Coarse, Marcos phase; *j–k,* red-and-black-on-white sherds, Post-Classic; *l,* probable Tohil Plumbate sherd, Post-Classic.

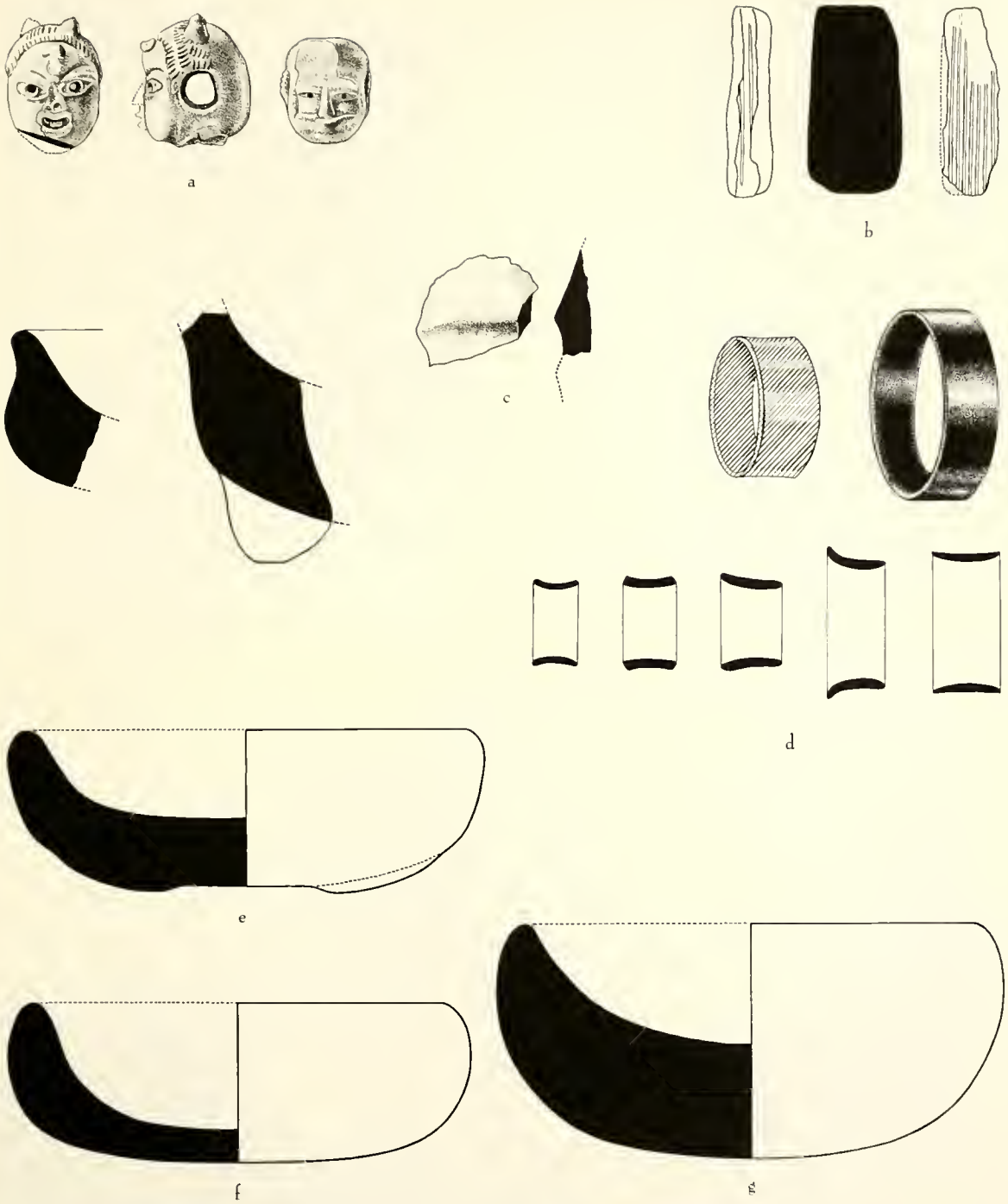
Figurines of the Ocós phase. *d*, limb fragments; *e*, apparently an effigy *adorno* from a small vessel.



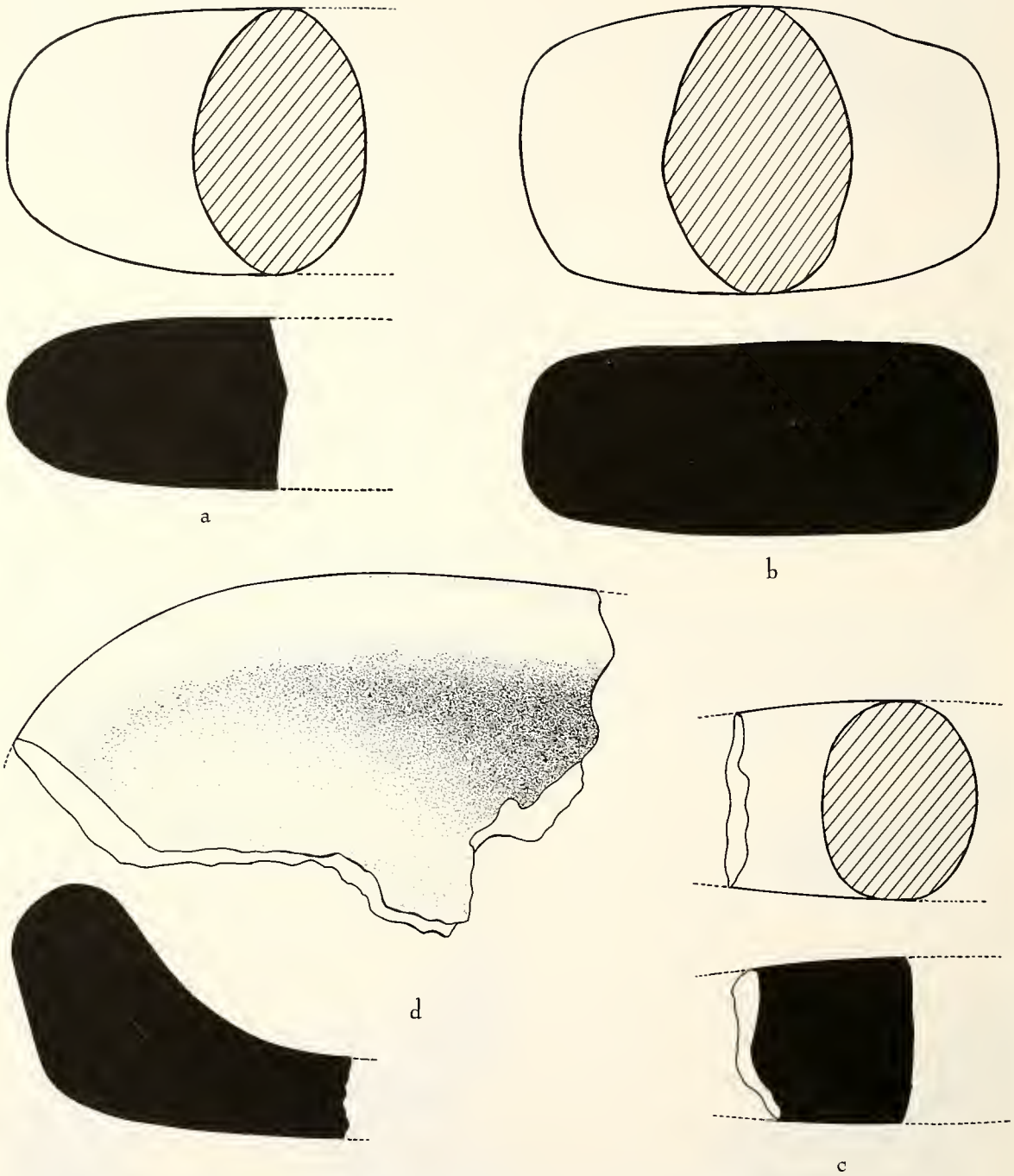
Whistles, effigy lugs, and a figurine of the Ocós phase. *d* has specular red paint on the interior surface and on the circular projections on the head. *h* has iridescent paint on the interior surface.



Stone artifacts of the Ocós phase. *a*, *b*, stone bowls; *c*, small fragment of what may be a bark beater; *d*, manos; *e–g*, metates or milling stones.

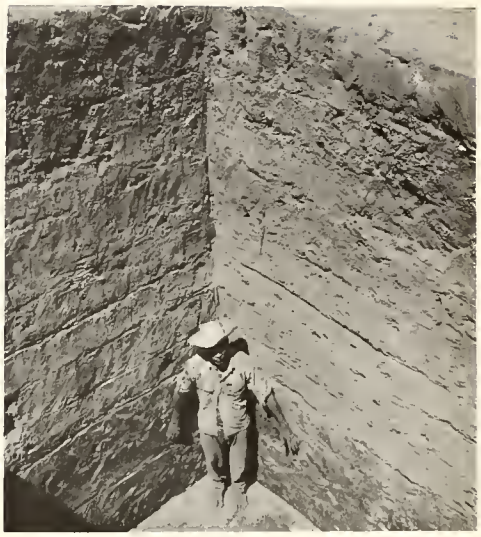


Stone and pottery artifacts of the Conchas phase. *a*, effigy ring; *b*, fragment of bark beater, possibly Post-Classic; *c*, fragment of grooved stone axe; *d*, "napkin-ring" ear spools (restored); *e–f*, stone bowls or mortars.



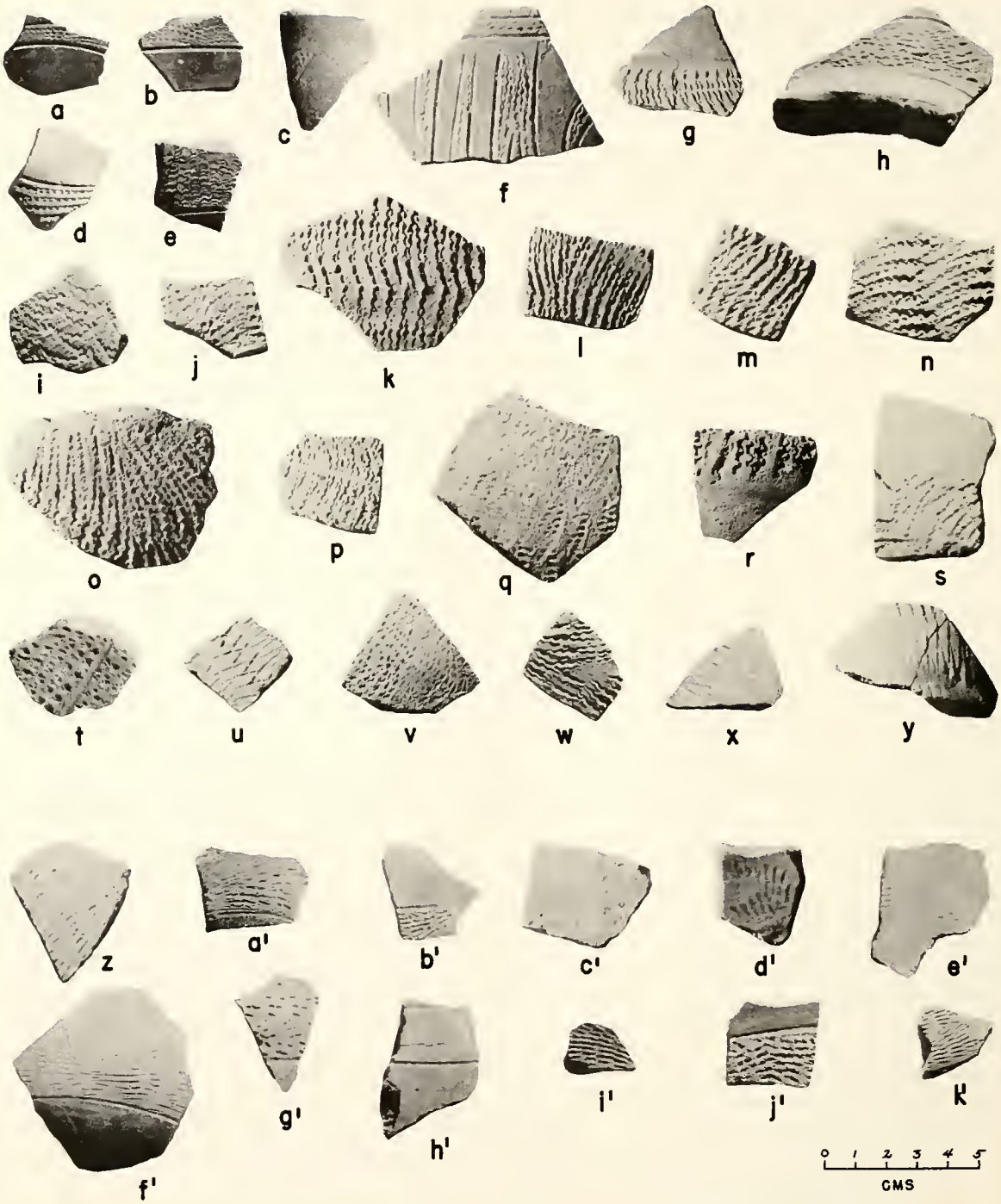
Stone artifacts of the Conchas phase. *a–c*, manos; *d*, trough-shaped metate.

The modern landscape at Ocós and view of Mound III, La Victoria. *Top, left*, general view of the lagoon in back of the beach at Ocós. *Top, right*, fishing with hand nets from dugout canoes in the lagoon, Ocós. *Bottom, left*, fishing with hand lines at the mouth of the Río Naranjo. *Bottom, right*, Mound III from the east.

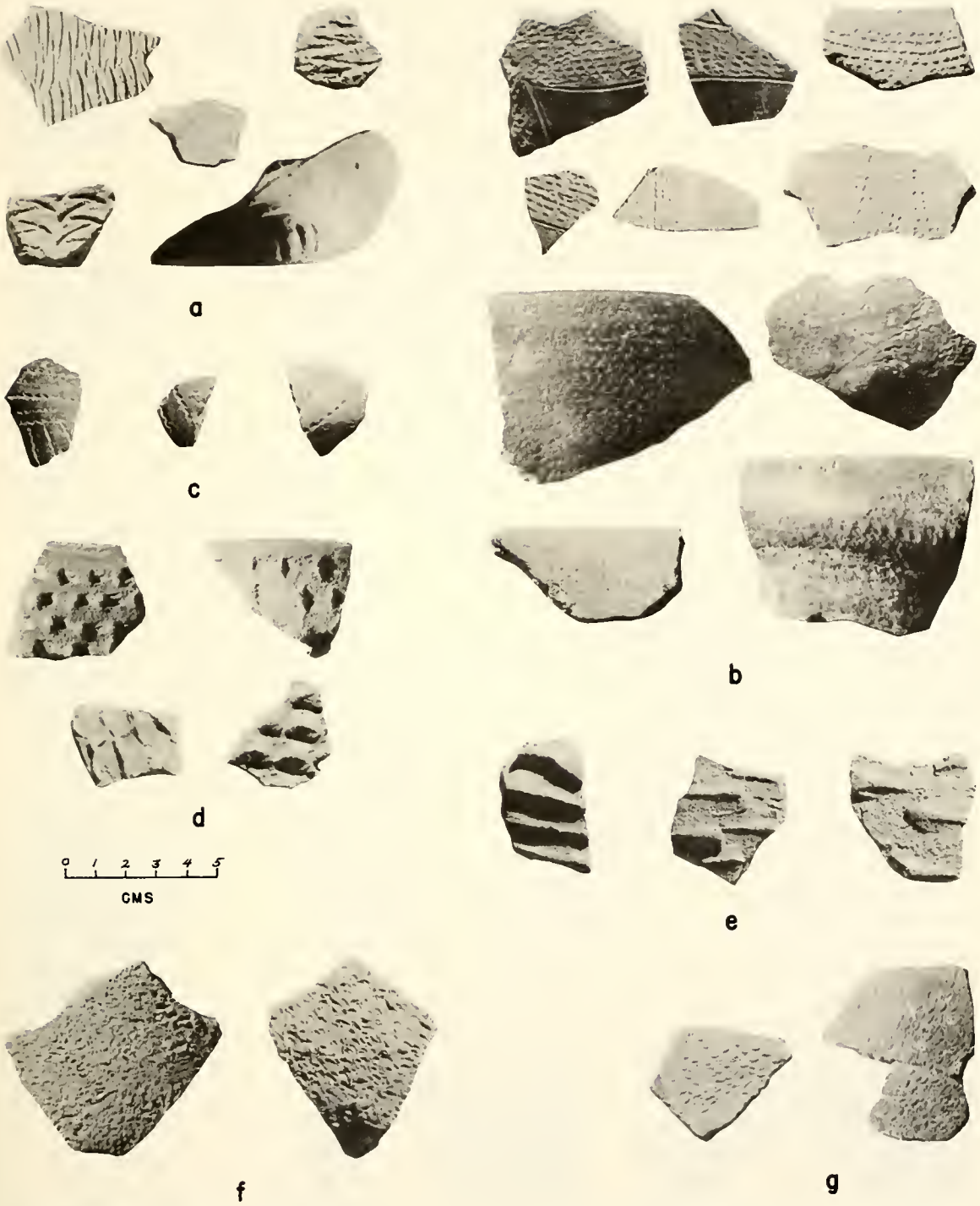


Excavations in Mound III. *Top, left,* E-5 at end of excavation. The lines showing on the faces of the cut were made by the workmen as guides during excavation. *Top, right,* E-4 at end of excavation. The workman is standing in wet mud below sea level. Above and to the left of his shovel can be seen a shell stratum. *Bottom, left,* view from the north of cuts made in Mound III. E-6 is nearest the camera. *Bottom, right,* profile of aboriginal pit in E-3, south face.

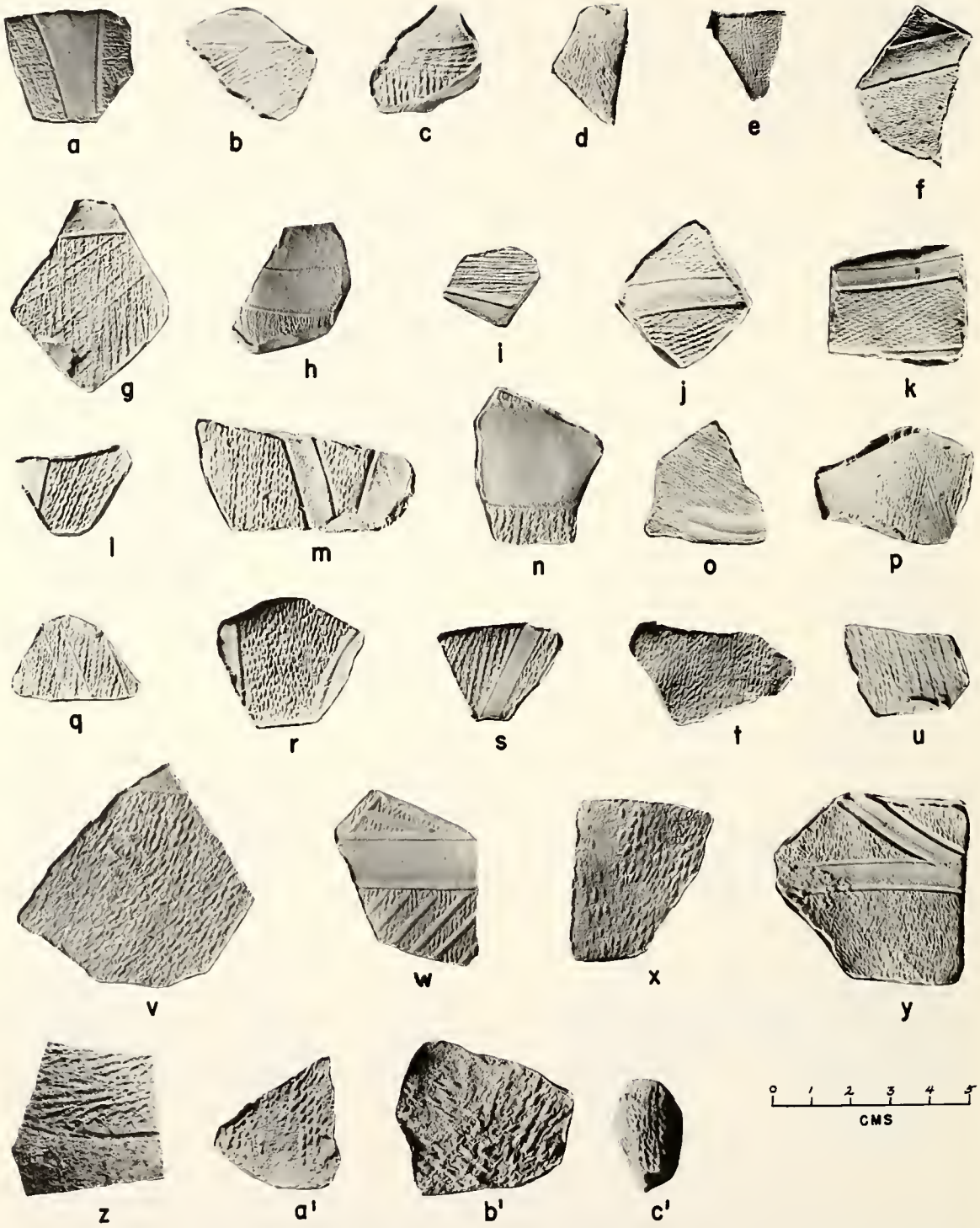
Excavations in Pit 1 and Pit 2. *Top, left,* Pit 1 from the south. The thin stratum of white ash deposited by the 1902 eruptions can be seen near the surface. *Bottom, right,* Burial 3 in Pit 1. The hand with the paintbrush indicates a large hole in the skull caused by a strong blow during the lifetime of the individual. A workman's clumsy mattock removed, inadvertently, the portion of the skull nearest the camera. *Bottom, left,* Pit 2 from the south, at the start of excavation. *Top, right,* Pit 2 with excavation completed. The darkness of a part of the profile is caused by the dampness of the soil.



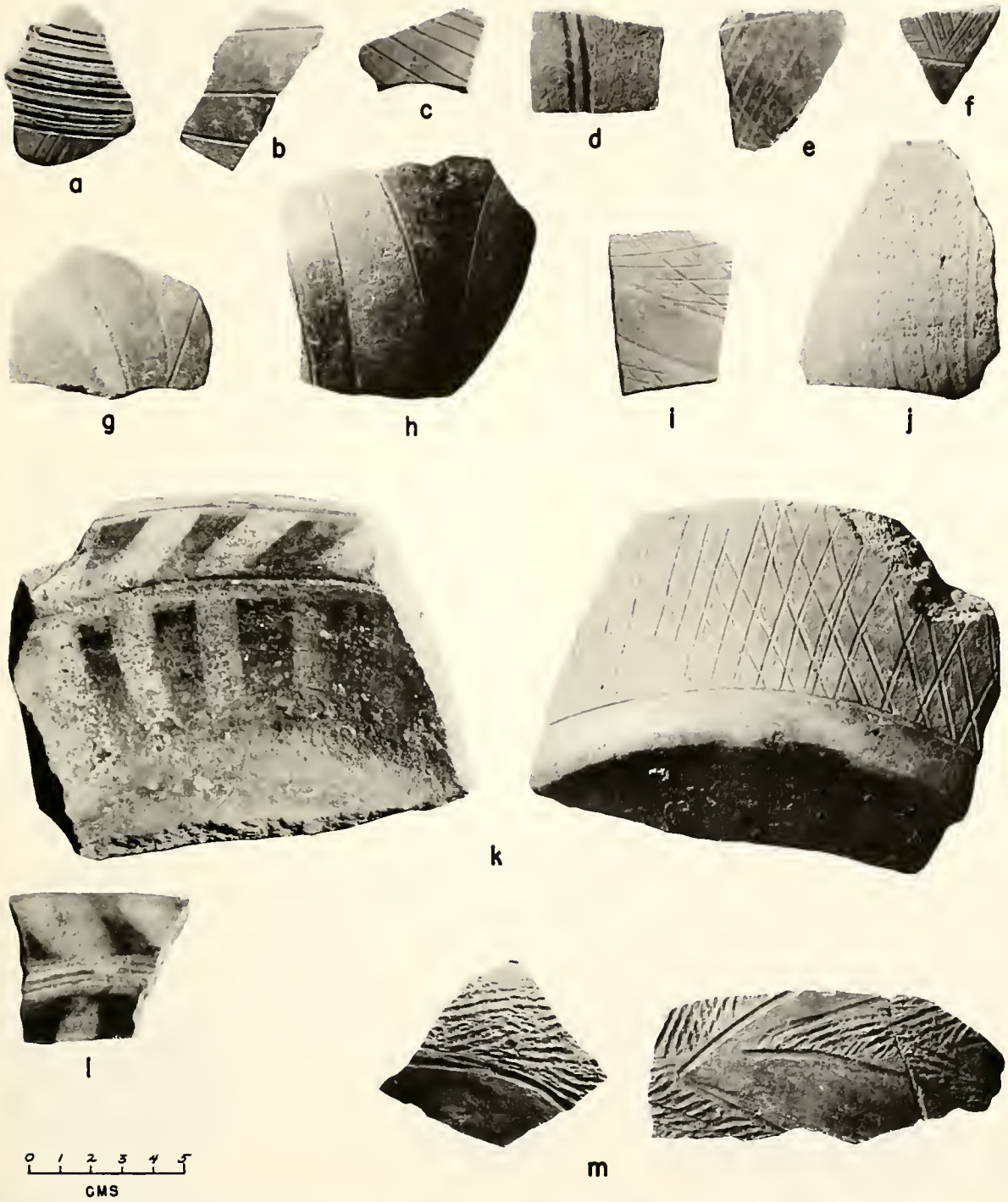
Rocker-stamped sherds of the Ocós phase. *a–y*, shell-edge rocker-stamping; *z–k'*, shell-back rocker-stamping.



Miscellaneous decorative techniques of the Ocós phase. *a*, plain rocker-stamping. On the lower right is a fragment of a Tlatilco-like animal effigy. *b*, dentate rocker-stamping. *c*, simple shell stamping. *d*, pinching. *e*, finger drag. *f*, net- or knot-roughened. *g*, fingernail punctation.



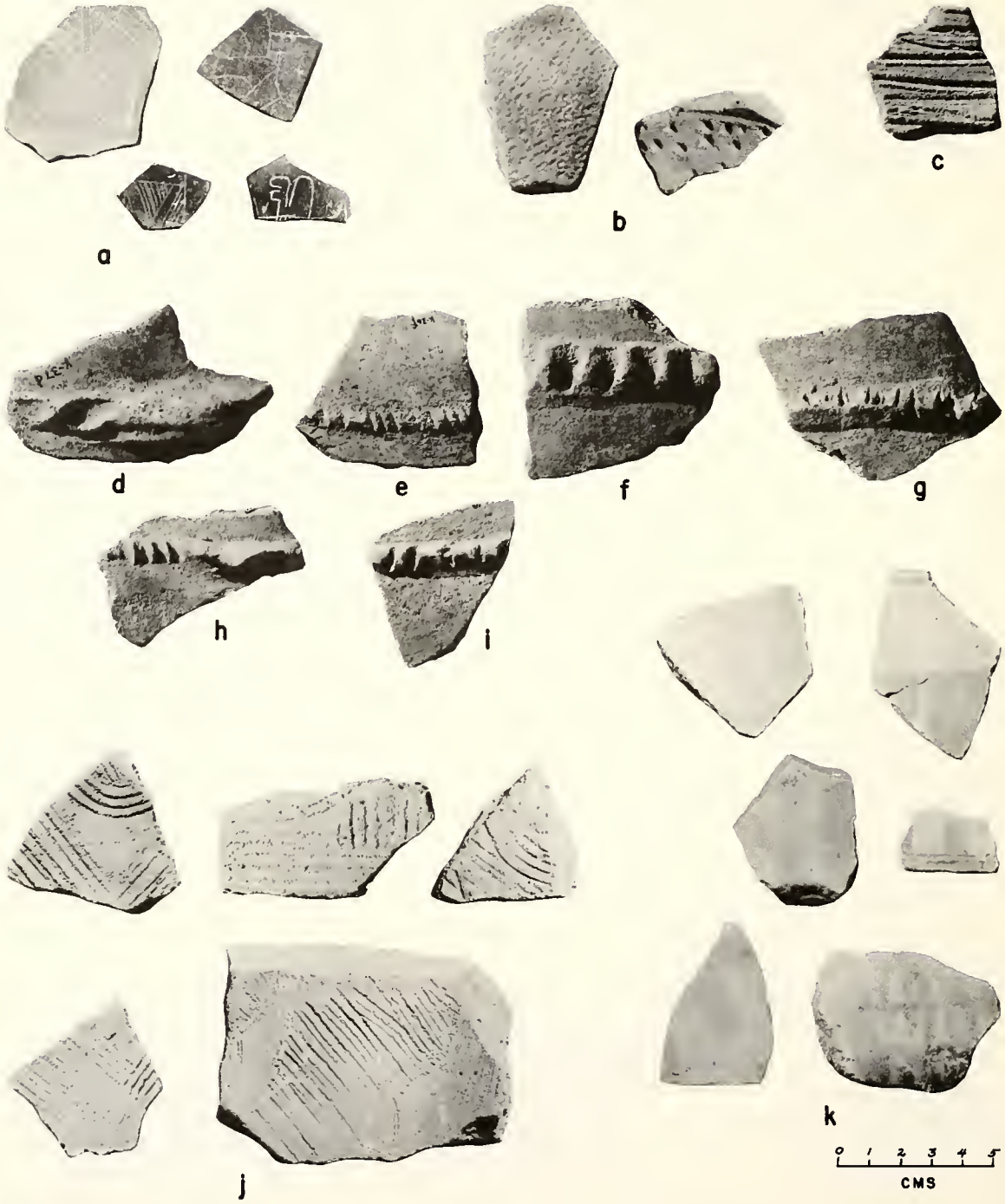
Cord-marked and fabric-marked sherds of the Ocós phase. With the exception of *z* and *c'*, these are photographs of plasticene impressions. *a–f*, fabric-marking. *c* apparently represents selvage of a textile. *g–b'*, cord-marking. Note the multiple impressions of *j*, *p*, *s*, and *b'*. *g* may have been made by impressing a ball of twine on the pottery. *z* is a sherd showing the use of a rocked cord-wrapped paddle. *c'*, fragment of a cord-marked figurine.



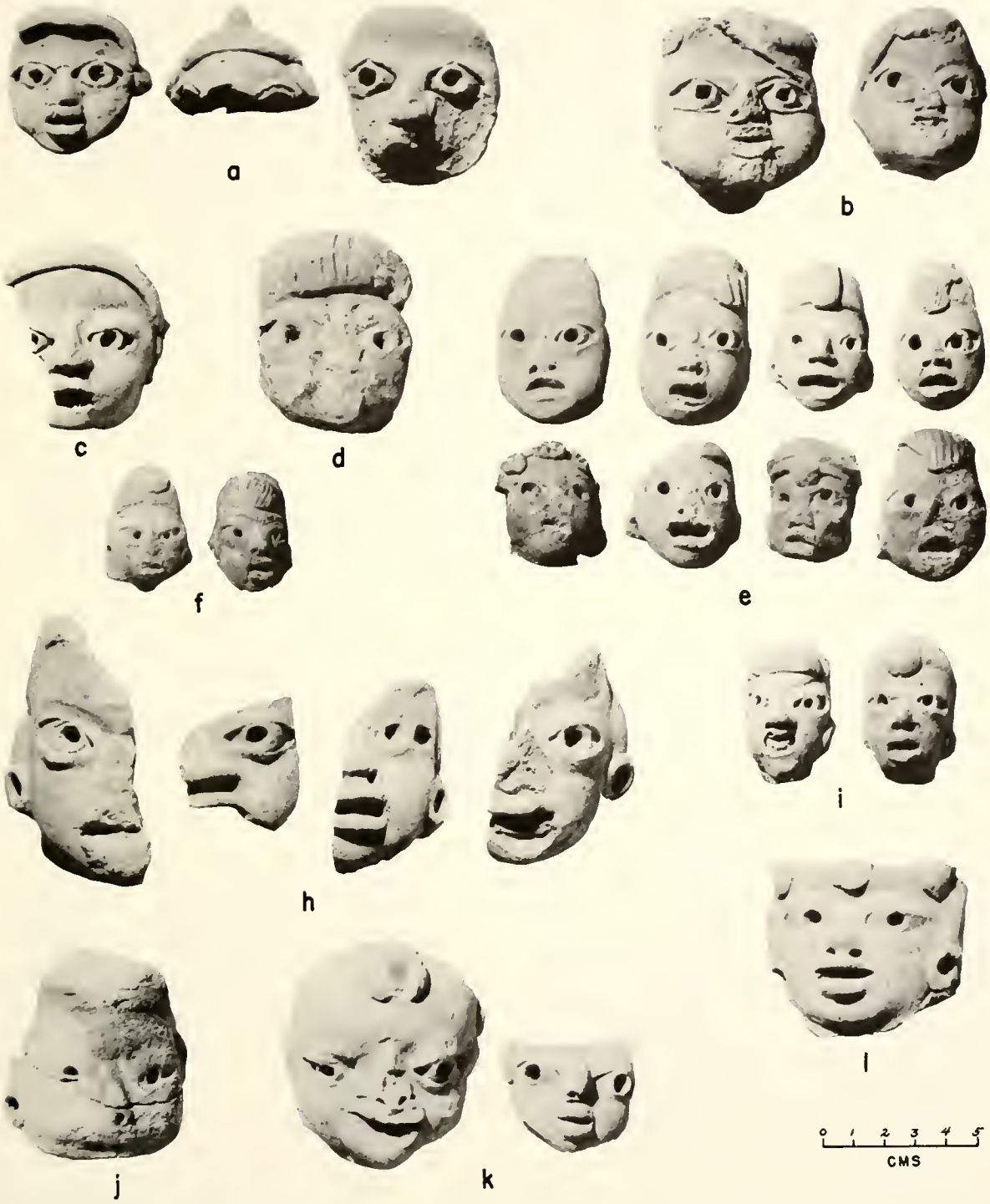
Miscellaneous decorative techniques, Ocós phase. *a*, *c–f*, *i–j*, indented-line burnishing. *b*, *g–h*, zoned burnishing. *k–l*, Ocós Buff dishes with iridescent striping on the interiors; the exteriors are criss-crossed with indented-line burnishing. *m*, sherds marked with a rocked cord-wrapped paddle, with subsequent zoning.

Artifacts of the Ocós phase. *a–d*, sherd disks. *e*, sherd abrader. *f*, incompletely drilled sherd disk. *g*, notched sherds (probably net weights). *h–i*, pumice abraders. *j*, pierced pumice disk. *k*, small obsidian scraper. *l*, sandstone palette. This may be of Conchas 1 manufacture. *m*, *n*, manos. *m* has been used as an anvil. *o*, large stone ball. *p*, pestles. *q*, *r*, stone bowls. Profiles are shown in figure 41. *s*, possible prong of a three-pronged incensario. *t*, *u*, fragments of effigies or masks. Both have a thick iridescent slip.

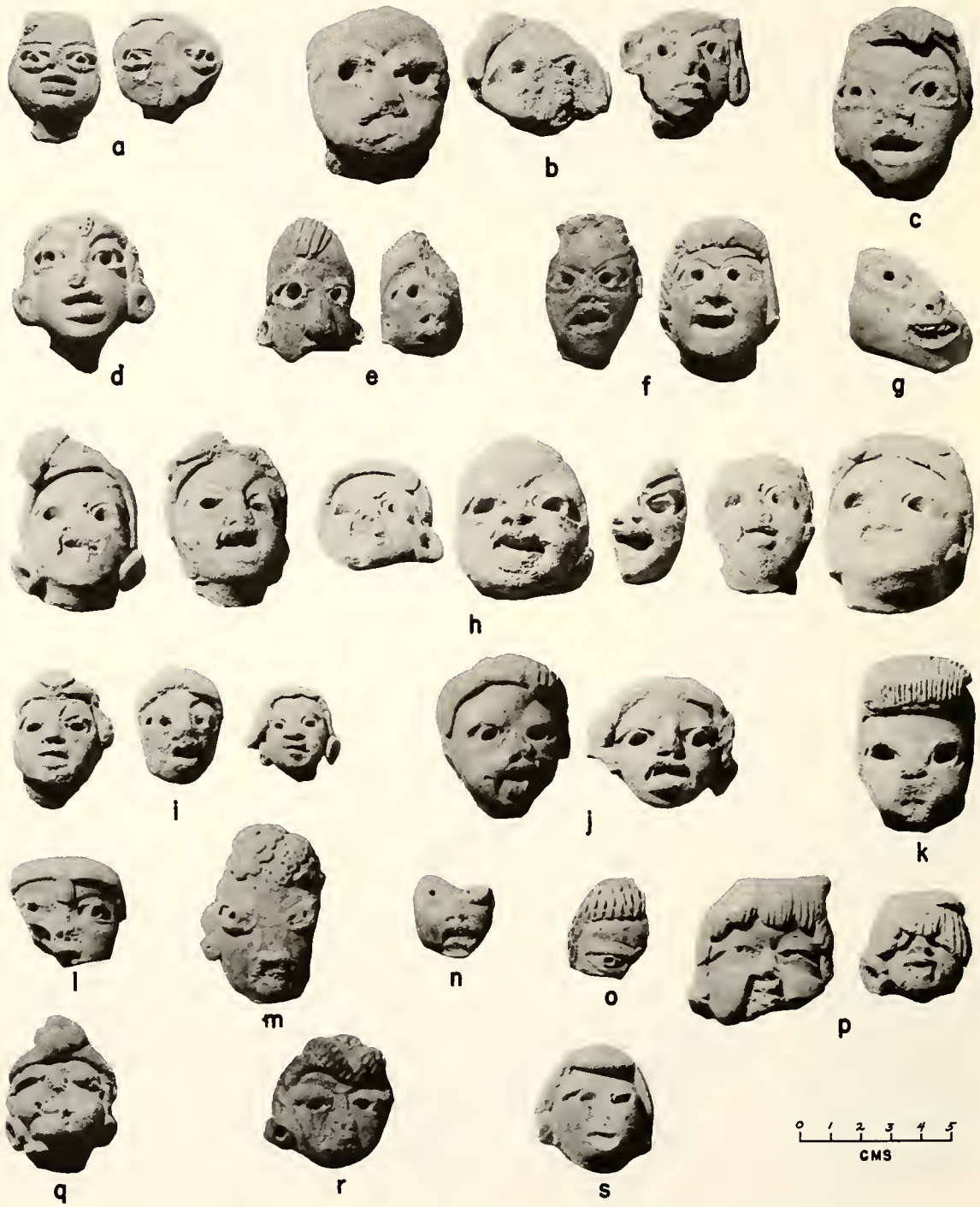
Ceramic traits diagnostic of the Conchas 1 subphase. *a–c, g–i,* striated sherds from large, neckless jars. *d, f,* grooved and plain rims of neckless jars. *j–m,* excised Ocós Black sherds. Red pigment has been rubbed into the areas of excision. *n, o,* broad-line burnishing on the bases of Ocós Black dishes. *p–s,* incised interiors of Conchas White-to-buff tripod grater bowls. *p* shows the design "Opposed Areas of Parallel Lines," and *r–s* have the "sunburst" or "Hub-and-Spoke" design. Both these designs are early in the Pánuco sequence at the Pavon site.



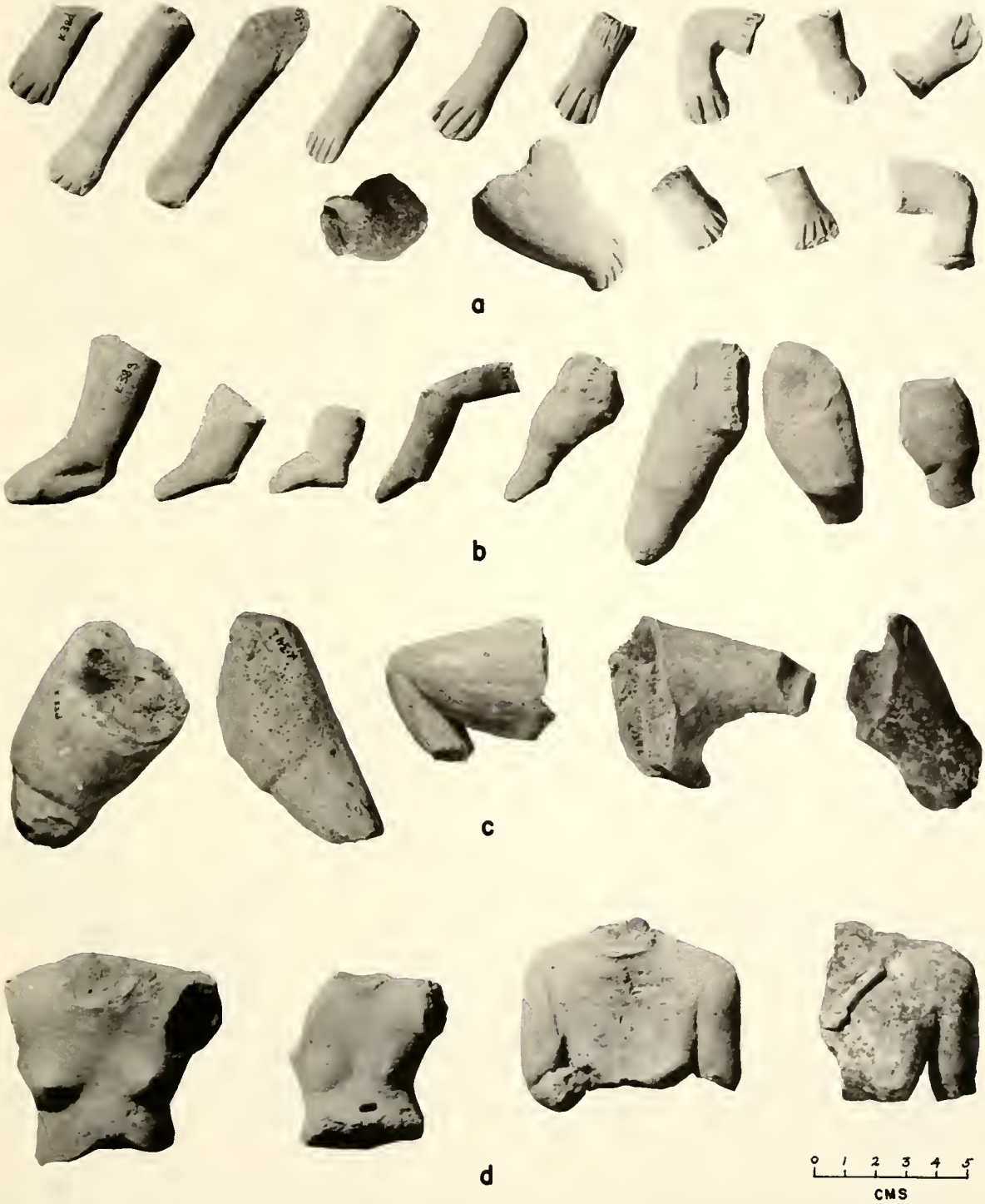
Miscellaneous ceramic traits of the Conchas phase. *a*, fine-line incising on Ocós Gray and Ocós Black sherds. *b*, random-stick punctation. *c*, scored underside of an incensario cover (fragment). *d–i*, indented fillets and lug handles on Conchas Red Unburnished necked or neckless jars. *j*, interior incising on the bottoms of Conchas White-to-buff tripod grater bowls, Conchas 2 subphase. *k*, negative painting on Conchas White-to-buff vessels.



Typology of figurine heads of the Conchas phase. *a*, RE-5-a. *b*, RE-5-b. *c*, RE-5-c. *d*, RE-5-d. *e*, RE-6-a. *f*, RE-6-c. *h*, RE-1. These large heads are always hollow, as are the bodies. *i*, RE-6-b. *j*, RE-3. *k*, RE-4. *l*, RE-2.



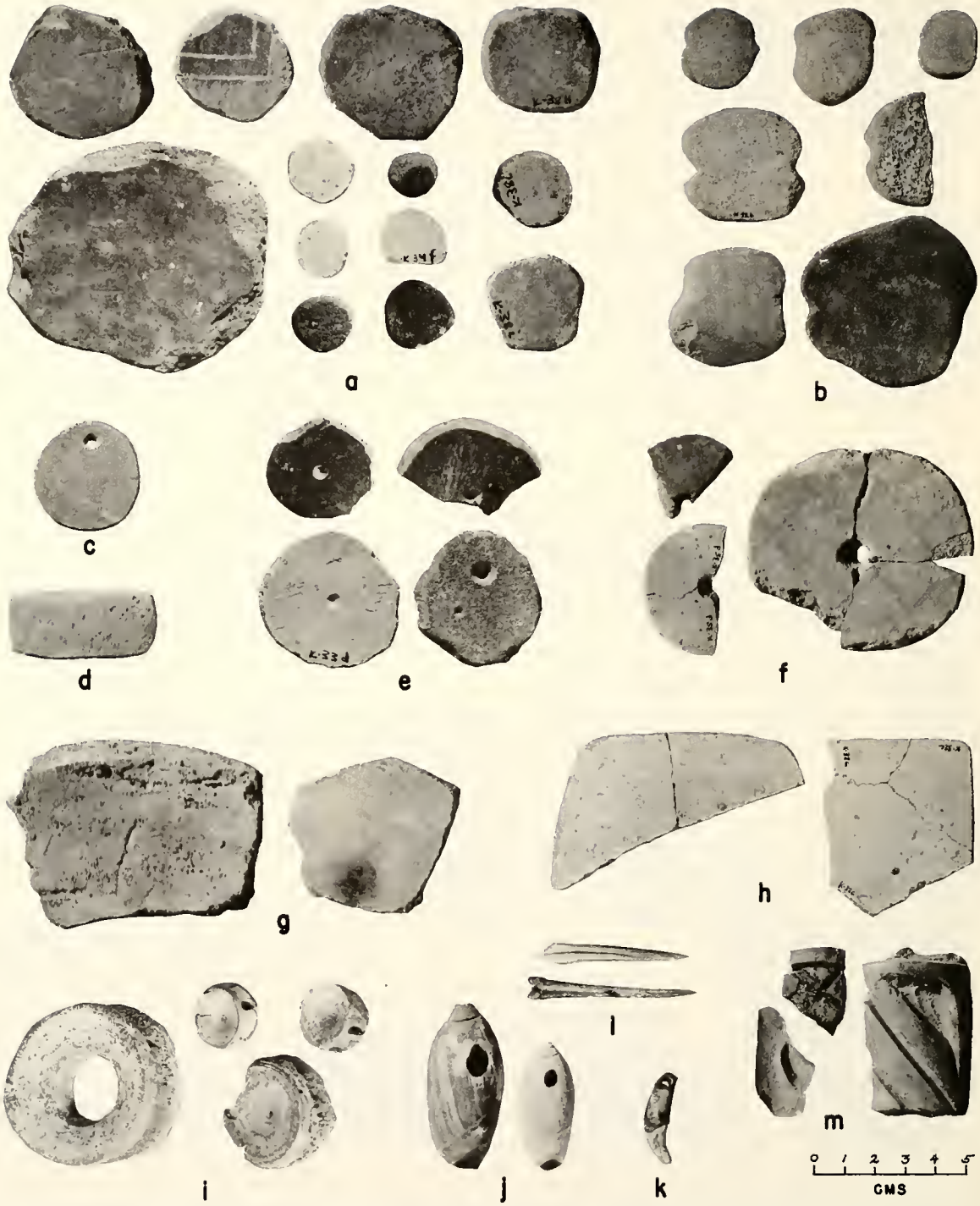
Typology of figurine heads of the Conchas phase (continued). *a*, RE-7. *b*, RE-8. *c*, RE-9. *d*, RE-10. *e*, RE-11. *f*, RE-12. *g*, RE-13. *h*, FE-1-a. *i*, FE-1-b. *j*, FE-2. *k*, FE-3. *l–n*, "Exotics," foreign figurines of unknown origin found in Conchas deposits. *o*, TZ-2. *p*, TZ-1. This and TZ-2 were either made in the Tres Zapotes region or are copies of typical Tres Zapotes figurines. *q*, PF-1. *r*, FE-4. *s*, VE-1.



Limb and body fragments from Conchas figurines. *a*, hands and arms. The large, fat examples in the bottom row are hollow. *b*, legs and thighs. The second and third from the right are viewed from above; if from the same figurine, they would have fitted together as shown, with the torso fitting on top. Almost all Conchas figurines are seated. *c*, legs and arms from large, RE-1 type figurines. *d*, torsos of Type 1.

Typology of torsos from Conchas figurines. *a*, Type 1. *b*, *c*, Type 2. The seated figurine below, right, is shown in three-quarters view; note the mode of tying the sarong. *d*, Type 3. *e*, *f*, Type 5. This type has close relationships with Las Charcas.

Typology of torsos from Conchas figurines (continued) and miscellaneous effigy fragments of the Conchas phase. *a–b*, Type 4 torsos. *c*, fragments of large, hollow effigy heads. *d*, "tab figurines" and other crude female effigies. *e*, howler monkey in full throat. *f*, fragments of feline effigies. *g*, various bird representations; some of these may be fragments of whistles. *h*, *adornos* in the form of animal heads; possibly weasels. *i–k*, fragments of large faces, slipped white-to-buff. *i* and *j* may be from effigy jars, but *k* is perfectly flat and therefore must have been part of a plaque.



Artifacts of the Conchas phase. *a*, sherd disks. All of these are from Conchas types; the example second from the left, top row, is Conchas Red-on-buff. *b*, notched sherds, probably net weights. *c*, drilled sherd pendant. *d*, small sherd abrader. *e*, incompletely drilled sherd disks. *f*, drilled sherd disks. The larger example is from a vessel with broad-line burnishing. *g*, large sherd abraders. *h*, rectangular objects made from Conchas White-to-buff sherds. *i*, fish vertebræ spools. *j*, pierced *Agaronia testacea*, of the Ocós phase. *k*, drilled canine tooth from a carnivore. *l*, pectoral spines of the catfish. These are found throughout Conchas deposits and probably were used as awls or needles. *m*, fragmentary roller stamps of pottery. The fragment on the right has red pigment in the cut-away areas.

Artifacts of the Conchas phase (continued). *a*, decorated interiors of polished pottery ear spools. *b*, decorated exteriors of polished pottery ear spools. All types of decoration are confined to Conchas 2. *c*, solid pottery ear plugs. *d*, pumice abraders. *e–i*, plasticene casts and originals of sherds which show impressions of twined matting or basketry. *e*, *g*, *h* are casts and are at a somewhat larger scale than the rest of the plate. *j*, thumbnail scrapers and spokeshaves of obsidian. *k*, small, prismatic blades of obsidian. These are absent from Ocós deposits. *l*, very small waste core used to strike obsidian blades. *m*, stone pestles. *n–o*, chipped stone axes. *n* was a surface find, but is believed to be Conchas. *p*, notched pebble, probably a net weight. *q*, small celt with a polished bit.

Crucero and Marcos sherds, figurines, and artifacts, and stone artifacts of the Conchas phase. *a*, flat pottery stamp, probably of Crucero date. *b*, modeled pottery spindle whorl, Crucero or Marcos. *c*, pottery bead, Marcos phase? *d*, effigy finger bone of pottery, probably Marcos. *e–h*, punctate sherds, Crucero phase. *i*, figurine torsos, Type 7; these are either late Conchas 2 or Crucero. The furthest on the left has a Tres Zapotes appearance. *j*, effigy fragments, Marcos phase. *k–l*, carved sherds, Marcos or Post-Classic? While not bearing a plumbate slip, they distinctly recall decorative features of Tohil Plumbate. *m*, sherd with appliqué spikes, probably from an incensario. Marcos phase. *n*, red-slipped sherd with elaborate excising. Found near the surface, but phase unknown. *o–p*, mano fragments, Conchas phase. *q*, river cobble which has been used as a mano, Conchas phase. *r–s*, pebble grinding tools. These bear traces of red pigment in the pores of the stone, and presumably were used to grind that substance. Conchas phase. *t*, stone bowl or mortar, Conchas phase.

(*Continued from inside front cover*)

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